ABSTRACT
OF THE
Gulstonian Lectures
ON THE
ORIGIN AND RELATIONS OF NEW GROWTHS.

Delivered at the Royal College of Physicians,

BY JOSEPH F. PAYNE, B.A., M.B., F.R.C.P.,
ASSISTANT-PHYSICIAN TO ST. THOMAS'S HOSPITAL.

LECTURE II.

IN my last lecture I endeavoured to show that the formation of tumours is a process subject to the same laws as are certain physiological or normal processes—viz., embryonic growth, repair or restoration of lost parts, and hypertrophy or hyperplastic changes. The application of these laws of growth is most obvious in the case of simple-tissue tumours, in which new growth is obviously a phase of the continuous reproduction of homogeneous tissue. Fatty growths never arise except in situations where fatty tissue normally occurs; thus they are most common in subcutaneous tissues, though less frequently met with in the fat surrounding the abdominal viscera. Some apparently exceptional localities for such growths are really less exceptional than they at first appear. Fatty tumours have been found within the vertebral canal, but there is there not unfrequently a small quantity of normal adipose tissue. Multiple fatty tumours found in many parts are no exception, for even in them the new fatty-growth cell has its point of departure in normal tissue of the same kind. In the case of cartilage there seems to be a fundamental difference. The distinct tumour of cartilage known as enchondroma may be said never to arise from normal complete cartilage. Unless it is vascularised, cartilage cannot give origin to a completely new growth. But cartilaginous tumours most frequently arise from bones that were once cartilage, and from fibrous tissue, which becomes readily converted, if not into cartilage, into bone; so that it arises from a tissue which, though not identical with its own, is its representative at some stage of development. In the one case we have a strict, and in the other a representative, homology.

Tumours which are not like normal tissues are called heterologous, or malignant. Distinctly heterologous tumours form two great divisions—namely, sarcoma and cancer. Sarcomatous tumours are essentially embryonic, representing early stages in tissue formation, parts of which are often found passing by gradual transition into simple tissue. But it is only tissues of a certain kind—the connective tissue series—that show this transition. Cancers are more different from the tissues in which they arise, and are not, strictly speaking, like any tissue of the body. They partially resemble glands, in having a compound structure, in comprising cells which are not unlike secreting cells in shape and appearance, and in having these cells enclosed in a sort of fibrous framework or stroma; but, as compared with a normal gland, the arrangement is extremely irregular and confused. If cancers could be compared with gland tissue, or be shown to proceed from it, like glandular tumours, they might be described as not entirely heterologous with their matrix. The majority of such tumours do arise in or near glands. The most familiar of all examples is seen in cancer of the breast. Or they grow on surfaces which are richly supplied with small glands, as the epidermis or mucous membrane. Hence it has been concluded that all tumours strictly called cancer do originate in epithelial surfaces, or in organs containing glandular epithelium, differing from simple epidermic structures and from glandular tumours by the unrestrained character of their growth. In opposition to this view is the theory of Virchow, who supposes that the cells of glandular appearance met with in unusual situations and arrangement, which constitute the chief anatomical feature of cancer, are not derived from the normal glandular structure, even when quite adjacent to it, but are produced *in loco* by a transformation of the cells of the tissue in which they are abnormally found—i. e., in most cases from the cells of the connective tissue. Now since a glandular secreting cell, or anything approaching glandular secreting tissue, is very unlike normal connective tissue, or anything that we have traced as arising from it, such a mode of origin is decidedly heterologous. Are any growths in the strict sense thus heterologous? Is there any part of the adult body remaining after development is complete which is capable of reproducing, as the embryonic tissue is, all kinds of structure met with in the body, either for the purpose of repair, or as a morbid growth? Virchow answers this question in the affirmative. In his view the connective tissue is such a germinal structure. Being less specialised than the other tissues it may be considered a sort of residuum left in an immature or embryonic state, when the other tissues are altered or differentiated to suit their special purposes. A suggestion of this notion is met with in the writings of Goodsir. Virchow's theory assumes a certain opposition between specialisation and the power of reproduction, but it is doubtful whether this can be laid down as an abstract principle. Another school of pathologists, the founder of which was Remak, have contended that development or new growth in the adult organism takes place in lines already definitely laid down at a very early period of development, reproduction or new growth of the connective tissue taking place from connective tissue alone, and of epithelial structures from epithelial structures alone.

In order to exhibit the distinction between the classes and tissues, it is necessary to look at the course of development in the normal organism—i.e., in the embryo of vertebrata. Remak was led, in his researches, to distinguish in the fowl's embryo, at a certain stage of development, three layers or laminæ, to which he gave the names of the corneous, the motor-germinative, and the intestino-glandular, out of which all the subsequently-formed tissues and parts are developed. It is well known what parts or tissues are to be attributed to each of these layers. It will be seen from the transformations which these layers undergo [the details of which were given by the lecturer] that there is a certain opposition, not between the upper and the lower layers, but rather between the middle layer and the other two, and that the structures derived from the latter may be called epithelium, whereas the term is not usually applied to any structures which arise from the middle layer. Remak appears to have held from the first that the development of these three layers goes on quite independently, and is retained throughout life. *Omne epithelium ex epithelio* might be the motto of this school, a similar axiom being of course assumed with respect to the tissues of the middle layer. If this principle were fully carried out, hardly any growth could be strictly heterologous. This question has given rise to much controversy, but the discussions have mainly ranged themselves under two heads—(1) the normal regeneration of epithelium, and (2) the possibility of structures corresponding with the different layers arising one from the other in pathological growth. There is, however, a third point, whether there exists any notable difference in the physiological or pathological behaviour of these two classes of tissues, epithelial and non-epithelial. No organ of the body is formed entirely of elements derived from one layer. In a gland, for instance, the glandular cells will come from one, and the connective tissue framework from another. Hence we get the distinction in many organs between the stroma and the parenchyma, the latter being in general the specific or peculiar elements of the organ, the former the framework or scaffolding by which they are supported. We have not, then, to compare organs so much as the parts of organs, and in so doing we find that this fundamental distinction extends in some degree to their chemical products, and to the physiological and morbid reactions to which they are subject. Take the effects of irritation or inflammation. All the structures derived from the middle layer may produce, under the influence of stimuli, a coagulable substance called fibrin. This is spoken of as being exuded from the vessels, but it may rather be regarded as a product of reaction between something which had exuded from the vessels and something contributed by the tissues. The fluid contained in serous cavities, and that which bathes the connective tissue, contain none of the

fibro-plastic substance which is necessary to form fibrin; hence these fluids, even when present in large quantities, do not spontaneously coagulate. When, however, in consequence of chemical irritation or mechanical injury, active exudation takes place into these tissues from the blood-vessels, the plasma thus effused will be able to determine the coagulation of the fluid present in the tissues. There is a fluid on mucous surfaces, and it is very different from that which bathes the surfaces of the connective tissue. It contains apparently no fibrinogenous substance. No coagulable material, no fibrin, results from ordinary irritation or inflammation of the epithelial surfaces. And when in inflammation of the skin, such as eczema, inflammation takes place, the fluid does not coagulate in the form of fibrin. Even if the whole of the epidermis be destroyed by potash, so that we may see the papillæ of the skin exposed, and see drops of exudation forming upon them, the exudation is not fibrinous, and does not coagulate. When blisters are formed the fluid is not, as a rule, coagulable, unless there is some special irritation, or some mixture of the blood has taken place. The most striking exception to this distinction in the pathological products of the different classes of tissues is the occurrence of the so-called croupous or diphtheritic false membrane, which is supposed to consist in great part of fibrin. With regard to true diphtheritic affections, however, this idea may be dismissed. It is an ascertained fact that no true fibrin forms part of diphtheritic casts, and it appears also that the false membrane of croup is cellular, and not at all analogous to fibrinous exudation. With regard to the rare affection of bronchial polypi, I agree with Dr. Bristowe that in most cases the material is first effused in the air-cells, and so finds its way into the bronchi, and is not produced on the epithelial surfaces of the bronchial tubes. The false membranes shed from the uterus in cases of dysmenorrhœa are not fibrinous, but are composed of epithelium. The only disease in which a true fibrinous structure is produced on any epithelial surface is ordinary pneumonia. But this is not produced, under ordinary circumstances, by any irritation, wound, or injury of the lung.

It is certain that epithelial structures never give rise to a new growth of vessels. Whenever vessels or vascular growths project from such a surface, they are derived from the subjacent connective or vascular tissue. Epithelial tissues, again, never give rise to fibrous tissue. This is seen in the case of wounds in the intestine, where union never takes place on apposed mucous surfaces, but only when the serous surfaces are brought together. Again, granulations never grow upon the skin or upon the mucous surfaces until the whole, or nearly the whole, of the epithelial layer has been removed. It is clear, also, that no bone, cartilage, or any other form of connective tissue, is ever produced upon such surfaces. The conclusion from all this is, that epithelial structures—i.e., those derived from the upper and lower layers—never give rise to the morphological products of the middle layer.

Then comes the most important question—whether the tissues of the middle layer ever produce those which are peculiar to the upper and under layers—i.e., is epidermis or epithelium ever originated from the tissues of the middle layer? This question does not admit of so simple an answer. Goodsir's explanation of the origin of new secreting cells was that they arose by germination from what he called the germinal spot, at the cæcal extremity of a gland-follicle. Many attempts have been made to observe the restoration of the lost or destroyed epithelium of the surface. The most familiar example is that of the healing of wounds of the external skin. When the skin, or even the epidermis, is entirely removed, the exposed surface is covered with an outgrowth of vessels and connective tissue which becomes surmounted with epidermis. As to the origin of this epidermis opinions are much divided. The question is difficult to decide, but in specimens that I have seen there have been appearances of an apparent transition from granulation tissue to epidermis. There is, however, much room for error in interpreting such observations. Of late years, much importance has been attached to the operation of skin-grafting, and the results have been quoted as proving the exclusive origin of epithelium from epithelium. Mr. Bryant, at Guy's Hospital, transplanted a portion of black skin to the body of a white man, and found that a black epidermic patch was formed twenty times the size of the original graft. M. Reverdin, the introducer of the operation, while he believes that the graft continues to live, thinks that this is not the source of the new epidermic elements, but that by a sort of contact action it causes the formation of epithelial elements out of the embryonic tissue of the granulations.

In other experiments it has been found that other tissues besides skin have almost equally accelerated the formation of epidermis. These experiments cannot be quoted in evidence of the truth of the maxim *Omne epithelium ex epithelio*, and the question cannot be regarded as by any means in a settled state.

A Clinical Lecture
ON
RÖTHELN, OR GERMAN MEASLES.

Delivered at the Middlesex Hospital,

BY ROBERT LIVEING, M.D., F.R.C.P.,
PHYSICIAN TO THE HOSPITAL.

GENTLEMEN,—In April, 1870, Dr. Murchison directed attention in this theatre to two cases of German measles then under his care. Since that time until the present summer (1873) I am not aware that any similar cases have been admitted into our hospital; indeed, the malady is generally of so mild a character that it is not commonly seen in our wards. It is therefore all the more important that you should turn your attention to it whenever occasion offers; for ignorance of its peculiarities may hereafter involve you in troublesome errors of diagnosis in the practice of your profession.

The disease we are speaking of was first described by German writers more than half a century ago, under the name of "rubeola," by which name it is still known in Germany. Unfortunately the same name has been applied in this country to common measles, or morbilli, so that we are obliged to introduce a new name, such as "German measles," "rötheln," or "hybrid measles," or "hybrid scarlatina." The two latter names are most objectionable, inasmuch as they give colour to the erroneous notion that the disease is a combination of measles with scarlatina.

Jane B——, aged twenty-seven, admitted June 10th, 1873, housemaid. This case was placed under my care by Dr. Harling, who had recognised it as one of German measles. When about eight years old the patient had a sharp attack of measles. On Sunday morning, the 8th of June, at 7 A.M., she had a feeling of nausea, which lasted during the morning, but passed off after dinner. On Monday morning, the 9th, about seven o'clock, the same feeling returned, accompanied with headache. At breakfast she found that her throat was sore on swallowing, and also noticed lumbar pains. At about 2 P.M. she saw that her face was red and a little swollen, then that her neck, back, and chest were flushed in a similar manner. She went to a doctor the same evening, who stated that in his opinion her complaint was measles. On the 10th, she noticed that her legs were affected, being red all over. She felt feverish.

On admission, the whole body of the patient was covered with small patches of a red papular eruption, most marked on the back, where it was more or less confluent. There was slight sore-throat, and the fauces were red. The conjunctivæ were somewhat suffused; the tongue was marked by the teeth, and of a brownish colour in the centre. The physical signs of the chest were fairly good; the bowels rather confined. The urine contained no albumen.

June 12th.—The rash is beginning to fade, and is slight on the hands and feet.

13th.—The tonsils are rather swollen, the left more than the right. There is a slight trace of albumen in the urine.

14th.—The left tonsil is ragged and painful; the vessels can be distinctly seen running over the posterior surface of the pharynx, which has scattered over it patches of a whitish-yellow colour. The rash is fading, but has not

quite disappeared, and the temperature is normal. The bowels open freely.

16th.—The urine is acid, 1032, and loaded with urates; no albumen.

17th.—The throat is rather better, and there is no pain, and no rash to be seen.

25th.—The patient was discharged convalescent. The eruption lasted seven days, but never became thoroughly confluent.

The patient was under observation for some weeks after her discharge; there was a very slight branny desquamation of cuticle.

Julia F——, aged ten, was admitted on June 16th. The patient had had measles when a baby, but no other infantile disease. On Saturday, June 14th, at 8 P.M., the patient first felt ill and sick, and at 9 P.M. she was sick four times. The following day (the 15th) at 10 A.M. her father discovered that her face was covered with a rash. Sneezing came on about two hours afterwards. There was no headache or lassitude. She had a slight sore-throat on Monday morning, the 16th.

On admission the urine was 1010, acid, with a trace of albumen; pulse 96; temperature 98·6°F. The whole of the body and limbs were covered with a red patchy eruption, most marked on the face and back, where it was to some small extent confluent. There was a little cough, and the fauces were slightly injected. There was lachrymation and sneezing; the tongue was dry and red at the margins.

June 17th.—The rash has faded a little from the face and back, but is increased on the front of the legs and dorsum of the feet. Urine 1020, acid; no albumen.

18th.—The patient is much better, and the sore-throat improved.

20th.—Urine 1020, acid; no albumen. The eruption has disappeared, and there is no more sore-throat.

23rd.—The patient appears quite well. Urine 1012, acid; no albumen.

27th.—Discharged. The attack lasted nine days; the eruption lasted from five to six days, and never became quite confluent.

A. J——, admitted July 4th, 1873. The patient had measles five years ago. She was quite well on July 1st. On July 2nd she felt low-spirited, and next morning (July 3rd) found her face and arms covered with a rash; towards evening it covered her whole body.

On admission, the patient's face was very much flushed and covered with a measly-looking eruption; this, on examination, was found to extend over all the body, and was very copious over the arms, back, and chest. It was in small spots, which did not coalesce anywhere. She had no running from the eyes or nose, but complained of sore-throat, which was inflamed. The tongue was very slightly furred; the bowels were regular. Pulse 92; temperature 98·2°. There was no coughing or sneezing. The chest was resonant, the breathing vesicular; the heart's area of dulness was normal; there was a systolic murmur heard at the base.—9 P.M.: Pulse 92; temperature 98·2°.

July 5th (the third day of the eruption).—The rash is less. Pulse 90.—9 P.M.: Pulse 98; temperature 98·5°.

6th.—The tongue is clean; the eruption has nearly disappeared; the throat is better. Pulse 92; temperature 98·4°; the urine acid; no albumen.

11th.—The patient is quite well.

The whole course of the attack lasted nine days; the eruption lasted five days, and never became quite confluent.

E. J——, aged four, admitted July 8th. The patient is sister of the above. On admission the pulse was 160, and the temperature 103·2°. The skin felt very hot. The child had a heavy expression of face. The tongue was covered with a white fur, through which the papillæ were seen of a deep red. There was a bright-red confluent rash on the chest and back. She had a cough. There was no running from the eyes or nose. The throat was inflamed. There was a slight dulness over the left apex, where there were a few moist sounds, also over the left back. Ordered to take two drachms of acetate of ammonia every four hours.—9 P.M.: Pulse 160; temperature 102·6°.

July 9th.—Pulse 144; temperature 100·3°. The patient is better, and the throat less injected.—9 P.M.: Pulse 158; temperature 101·8°.

10th.—Pulse 140; temperature 100°. The pulse is much better, the skin less hot, and the tongue cleaner. No albumen in the urine. The eruption is less.—9 P.M.: Pulse 116; temperature 100·2°.

11th.—The child is much better. The tongue is cleaner, but there is still some cough. The attack lasted about eight days; the eruption lasted six days, and was quickly confluent. Discharged well.

Mary F——, aged thirty-eight, admitted July 12th. Has had measles. On admission the pulse was 106; temperature 100°. The face, chest, back especially, and the rest of the body, were covered by a bright measly-looking eruption, which over the face was very copious, with a tendency to become confluent; but on the chest, arms, and rest of the body was in distinct spots, with healthy-looking skin between. It was more developed on the chest and upper part of the body than on the legs. She complained of sore throat, which was found to be injected. The eruption came out yesterday (July 11th), and made its first appearance on the face, extending to the forehead, and then to the neck and chest &c. The appearance of the eruption was preceded by very little constitutional disturbance. The patient on admission had no cough and no coryza. The tongue was furred, the skin hot, and the appetite bad.—9 P.M.: Pulse 100; temperature 100·6°.

July 13th.—The eruption on the face has become confluent, so as to give it a uniform scarlet appearance; on the arms the eruption is more copious, but in spots. The tongue is furred and the throat still sore; the conjunctivæ injected. She perspired freely during the night. Pulse 92; temperature 99·8° Urine 1010; no albumen.

14th.—The eruption is less distinct.

16th.—The eruption has entirely faded.

July 18th.—Discharged convalescent.

The whole course of the attack lasted about eight days. The eruption lasted five days; at first measly, but becoming confluent on the third day.

Remarks.—The following points are especially worthy of note:—

1. The premonitory fever in German measles is generally mild, and resembles in many respects, though not in duration, that of common measles. There is more or less pain in the limbs, slight shivering, sore-throat, and often, though by no means always, coryza, redness of the conjunctivæ, and sneezing. All these symptoms were present in some of the cases I have had under my care. The characteristic features, however, of the premonitory fever, as contrasted with that of measles, is its *duration*, which is seldom much more than twenty-four hours, whereas in measles it is from three to four days—that is, the eruption of the latter disease appears on the fourth or fifth day. Dr. Murchison remarks on this point, that "most authors fix the duration of this stage at about three days, the eruption being said to appear on the third or fourth day. In my experience, its duration, as in the cases you have seen in the wards, is much shorter, the rash appearing on the second day, or even within the first twenty-four hours." Dr. Murchison's experience is entirely borne out in this respect by my own, and that of many other observers. Indeed, I consider the short duration of the febrile attack before the eruption appears as one of the most constant and distinctive features in which the fever differs from ordinary measles.

2. The character of the eruption when it first appears is almost always described as "measly"—that is, in small reddish patches. In the first instance the rash consists of small rounded collections of minute red papules, which after a time coalesce and form larger irregular patches, just as in measles, but with apparently less tendency to become of a horse-shoe or crescentic shape. After a time the patches may all unite, and then the skin becomes to the naked eye of a uniform red colour, closely resembling that in scarlet fever. This coalescence of patches was complete in two of the cases recently under my care in this hospital. In the other cases the confluence was only partial, the eruption retaining some of its patchy character until it finally faded away. The rash is generally of a rather brighter colour than is met with in typical measles. "The eruption," says Dr. Murchison, "is copious in direct ratio to the severity of the general symptoms. It lasts longer, as a rule, than the rash of either measles or scarlet fever—from four to ten days. Its disappearance is followed by a desquama-

tion of branny scales." With regard to the desquamation, I would remark that it is not generally such a characteristic feature as in scarlet fever. Very mild cases of the latter disease often desquamate freely. Mild cases of German measles, on the other hand, desquamate but little, as in the cases before us, where it was but slight. The protracted duration of the eruption is certainly one of the characteristics of the malady, though no doubt a more or less variable one, and of little or no value as a means of early diagnosis. In the cases under my care in the hospital the eruption lasted from five to seven days—a longer time than is usual either in measles or scarlet fever.

3. Amongst the most constant symptoms of this fever is the persistent, though not generally severe, sore-throat. The tonsils are red and swollen, and remain in that state usually for some days after the rash has faded; indeed, the sore-throat is often the last symptom to disappear. This soreness about the fauces is by no means of the same severe character as that met with in scarlet fever, and very rarely leads to ulceration.

4. The presence of albuminuria is of not unfrequent occurrence, and it was present for a short time in two of the examples under discussion. It does not always, however, pass away rapidly, as it did in these cases; it may become chronic, or even lead in some rare instances to acute dropsy. This, in fact, constitutes the chief and almost the only grave feature of the disease, but, as it rarely occurs, a favourable prognosis may be given.

5. The disease propagates itself, and never leads to the production of either scarlet fever or measles in others. The seed, as a gardener would say, comes up true. This is a fact of great importance, and almost conclusive against its being either a mild form of morbilli or scarlatina, or even a combination of the two.

6. German measles affords no protection from either of its allied diseases; nor does scarlet fever or measles protect in the slightest degree from attacks of rötheln. This fact, if admitted—and it is undoubtedly true,—is the strongest possible evidence that the disease is distinct from all others, however its superficial appearance may lead us to believe that it is some modified form, or so-called hybrid, of scarlatina and morbilli. All my patients, with one exception, had previously had measles. My own opinion is, that rötheln is more distinctly epidemic, at least in this country, even than ordinary measles, and certainly more so than scarlatina; and, further, that it is probably far less contagious than either of those diseases, though on this point I should be very unwilling to dogmatise. Several convalescent children were in constant communication with the cases in my wards, but not one of these children contracted the malady. Moreover, several cases that I have had under my care in private practice have failed to communicate the disease to others.

In conclusion, I would remark that German measles is not yet fully recognised by the profession in this country; little or no account is given of it in our ordinary text-books on medicine, and its name does not find a place in the "nomenclature of diseases" drawn up by a committee of the Royal College of Physicians. Under these circumstances, it is not surprising that errors of diagnosis should sometimes bring discredit on our profession. For example, a medical man is called in to a case of German measles in its early eruptive form; he is not particular to inquire about the symptoms or the duration of the premonitory fever, and he at once pronounces it *measles*. Perhaps this would be of little importance if the case remained under his care, but unfortunately he is sent for to the country, and in the meantime the character of the rash of his patient has changed to a uniform red eruption, and is pronounced by some other medical man to be *mild scarlatina*. In the course of ten days, probably, the patient is well, and it then is evident that the case is one neither of measles nor of scarlatina, but of rötheln. It is in order that you may be on your guard against similar mistakes that I have to-day directed your attention to this subject.

AT a recent sitting of the Société de Biologie Dr. Onimus related two instances of trophic alterations due to nervous causes. In one case of ataxy, zona of the palm of the hand was observed; in another, also of ataxy, he witnessed œdema of the thigh and of the ring finger.

PYÆMIA IN PRIVATE PRACTICE.

BY HENRY SMITH, F.R.C.S.,
SURGEON TO KING'S COLLEGE HOSPITAL.

THE particulars of two cases of pyæmia in private practice which have occurred under my care are interesting enough to warrant their publication. They were, it will be seen, both peculiarly distressing, as is mostly the case with this disease, inasmuch as they each occurred after a very slight surgical operation. The subjects of them were in the vigour of youthful manhood; and they were neither of them exposed to influences which we should expect would lead to the reception of the disease.

The most recent case I will narrate first. A fine, handsome officer, aged twenty-two, consulted me last October with a very bad varicocele. It had existed for several years; and the old operation of removing a portion of the skin of the scrotum had been practised, of course without any benefit. The varicocele gave him so much annoyance and was so large that I did not hesitate to assent to his proposition that he should have the needles applied, as he was in good health, and during the course of twenty years' pretty extensive practice in private I had never met with or seen a mishap after this proceeding.

On October 16th the patient was operated on by me in the usual manner with the hare-lip pins and twisted suture. He was lodging in a house close by the Regent's-park, in what we should call a very airy and healthy thoroughfare. A good deal of irritation was produced by the pins; and as I was anxious to get the veins thoroughly blocked, in consequence of the failure of the previous operation, I did not remove them until the thirteenth day, when ulceration was fairly established. Two days afterwards he had a prolonged rigor. Slowly and surely the dreaded signs of pyæmia showed themselves: the sweet breath, the peculiar and unmistakable facial aspect, together with the calmness of mind and self-assurance of recovery; lastly, pneumonia set in, and he died a month after the operation.

A few days after the appearance of the symptoms in this case, I operated on a gentleman in the neighbourhood for a tumour near the buttock. Six days afterwards he got a rigor, followed by symptoms which indicated mischief, and which ended in a large deep-seated abscess in the ischio-rectal fossa, from which he recovered. About the same time a gentleman from whose femur I removed a large portion of necrosed bone got a tremendous attack of erysipelas, as also did another gentleman from whose leg I removed an exostosis. It is true there was a good deal of erysipelas about just then, but I cannot help the suspicion that I may have carried the infection from the poor young fellow who died after the operation for varicocele.

The other case was even perhaps more distressing. It occurred in the person of a young officer about twenty-five years of age, who contemplated matrimony, and had a congenital phimosis. He requested its removal. He had just returned from India, where he had suffered a good deal from ague and fever, but he was in excellent health when he came to me, and the part to be operated on was perfectly free from disease, and the operation itself was of the simplest. The wound nearly healed up, and on the fifth day he was on the sofa, and had he wished to leave London, I should have permitted him to go away; but he did not move out. On the eighth day he was suddenly seized with a violent rigor, followed by intense fever and vomiting. Neither the patient nor myself thought much about these symptoms, as he said it was one of his old attacks of Indian fever. The rigor, however, was soon repeated; the symptoms increased with fearful rapidity; the sweet breath, the peculiar facial aspect, and, lastly, pain and swelling in one or more of the joints of the fingers, too plainly told the tale, and in five days from the commencement of the symptoms, and twelve from the date of the operation, he died.

This case occurred to me four years ago, and, although I have notes of the dates, I have no recollection as to whether I was attending any cases of erysipelas at the time, but I think not. It occurred to me at the time, and it has occurred to me since, whilst thinking of this case, that his repeated attacks of ague and fever in India may have pre-

disposed him to the easy reception of pyæmia. Whether this be a reasonable view of the matter or not I leave for the consideration of those surgeons who have had large experience amongst Englishmen in India.

I have seen one other case of pyæmia in private practice, but it did not occur after a surgical operation. It was in the person of a medical man living by the seaside, who had injured his finger whilst performing an operation for necrosis. Symptoms slowly set in a few days after the receipt of the injury, and they were so ill defined that the case was supposed to be one of ordinary fever and then of rheumatic fever. After a fortnight I was requested to go and see him, in consultation with his attendant, a very eminent provincial surgeon. I found the patient with the peculiar pyæmic aspect of face, and the unclouded and hopeful state of mind which one so often meets with in what I may term the more prolonged cases. There was no deposit in or pain about the corresponding arm, but there were great swelling and fluctuation in one knee-joint. It was this circumstance, doubtless, that misled the very experienced surgeon who was attending him. I had no hesitation in stating at once that the patient was suffering from pyæmia, and that his knee-joint was full of pus; an incision there was followed by the evacuation of an enormous amount of purulent matter and great relief, but the symptoms of pyæmia continued unchecked and this gentleman died.

With regard to the cause of the pyæmia, in the first case especially, it may be asked whether I had had much to do with cases of erysipelas in the hospital. We were very free both from erysipelas and pyæmia this last autumn. In the autumn before, however, when I had charge of Sir William Fergusson's beds in addition to my own, and an unusual amount of severe bone and joint cases were operated on, pyæmia was rather prevalent for a time; but although I was actively engaged in operating in private at the same time, I did not meet with a single case of blood-poisoning or erysipelas.

Wimpole-street, W.

PRACTICAL NOTES ON CUTANEOUS SUBJECTS.

By TILBURY FOX, M.D. Lond., F.R.C.P.,
PHYSICIAN TO THE DEPARTMENT FOR SKIN DISEASES IN UNIVERSITY COLLEGE HOSPITAL.

VII.—THE TREATMENT OF LUPUS.

I AM opposed in some important points to the treatment of lupus laid down in books. Especially I think that irritants and caustics, so necessary sometimes, are often used where soothing remedies should be employed. The essential, and in fact only, treatment, according to most authorities, consists in causing the removal of the lupus neoplasm by caustics, and many at once resort to their use. But there are several important preliminaries which should, in my opinion, be taken into account before any local treatment is adopted. In the first place, it is very necessary to ascertain whether the lupus is uncomplicated or not. If the patient be strumous or phthisical, there will be a special tendency to free pus-production, and he or she must be treated for struma vigorously, by appropriate diet, change of air, iron, cod-liver oil, and the like, so as to get rid as far as possible, before commencing severe local treatment, of the pus-production. If there be a suspicion of a syphilitic taint, I do not hesitate to give, in conjunction with the use of cod-liver oil and quinine, anti-syphilitic remedies. Patients with erythematous lupus, in good health, and in whom syphilis seems to exist, will often be greatly benefited by the same kind of treatment, or by a long course of iodides. In some cases there exists in greater or less degree defective assimilation from bad living, or anæmia, or general debility only. It will be requisite for good success in the treatment of the case to improve the patient's health by appropriate remedies before the use of local remedies of any severity, otherwise the disease is more liable to spread during the progress of the local treatment.

Now as to this local treatment. The object is to get rid of the lupus growth with as little disfigurement as possible. It makes all the difference whether the lupus be severe or slight. If it be small in extent, it can be readily destroyed by astringents or by mild caustics. If there be only slight infiltration, I have found painting the part several times a day with liquor plumbi after applying hot water suffice to remove it, especially if the patch be very hyperæmic. If the small spot be tubercular, the nitrate-of-zinc paste of the University College Hospital Pharmacopœia, or the acid nitrate of mercury, or, better still, biniodide of mercury and glycerine (twenty grains to the half ounce), applied freely once or twice, suffices. The part should be retouched on the removal of the scab which forms, once or more, till the parts are levelled down to their proper plane. If the lupus is more extensive, but still yet an infiltration, and indolent as in lupus erythematodes, the best remedies are the emplastrum hydrargyri, with occasional applications of equal parts of caustic potash and water.

When a lupus is tender, very hyperæmic, and shows a tendency to spread, whilst the amount of blood in it is easily increased by exposure or irritants, I think caustics are to be avoided for a while. In such cases, if the deposit is marked, it is necessary to use very powerful caustics, and these freely, in order to destroy the growth. The result is great scarring, and not only this, but the disease tends to spread and to develop in the healthy contiguous parts—the more so if the patient is out of health. My rule is in such cases to check the hyperæmia first of all by excluding the air, soaking in oil to get off scales and scabs, and applying calamine lotion. When the patch assumes an indolent aspect, and the patient's health has been improved, then is the time to apply caustics. But I am sure that many cases of lupus are spread by the improper use of caustics.

In all cases in which the lupus is tubercular, in which the deposit or infiltration is well-marked or excessive, caustics must be freely used. But even in regard to these cases I would advise that the general health should be improved if need be, before caustics are used, or the disease may spread through irritation set up in the adjoining parts, which thereupon participate in the general defective nutrition.

It will be observed, then, that I treat lupus which crusts by antistrumous remedies; lupus which is very hyperæmic by soothing and mild astringent applications; and use caustics to lupus which is not red, hot, and tender, but in which the infiltration is marked, and the hyperæmia is of an indolent kind.

Various caustics are recommended for the destruction of lupus. The acid nitrate of mercury is useful and manageable, since its action can be limited to the locality desired. It is useful in marked lupus of the face of tubercular character. Caustic potash is effective, but it leaves hard scars, and is not, therefore, advisable for the face. Nitrate-of-zinc paste is good for patches if much infiltrated. It does not give much pain; nor does it scar greatly, and I prefer it to any other kind of caustic for the face. Arsenical caustics are available under the same conditions. Biniodide of mercury and glycerine, in the proportion of from 10 to 20 grains of the former to half an ounce of the latter, is useful in cases of well-marked tubercular lupus. The galvanic cautery and the hot iron suit the severer and more obstinate cases of thickened lupus patches. Nitrate-of-silver stick is the favourite Vienna remedy. It is said to leave thin scars. But Vienna and London cases are different. No doubt the nitrate-of-silver stick is good in lupus cases accompanied by much ulceration or with implication of the deep cellular tissue, for a caustic is there needed which can be applied effectively to the boggy and extensive lupus infiltration, and yet not affect the healthier tissues around. It may be used freely without much harm, and without causing undue scarring. If I had Vienna cases to treat, I should use the caustic point, perhaps; but then the English cases do not tend to ulcerate or to be complicated by extensive inflammatory implication of the connective tissue, and the more active caustics can be used so as to limit their operation as desired.

The mode of using these caustics is very simple. They should be used cautiously to a small portion at first, and especially to the edge of the lupus patch at the outset, so as to get a circumferential scar across which the lupus infiltration cannot spread. If the patch becomes inflamed a poultice may be applied for a few hours, and the part dressed with some soothing unguent, the caustic being re-applied when the irritation has subsided, and again and

again until the diseased surface has levelled down to a little below the plane of the healthy skin, the infiltration has practically disappeared, and the resulting surface begins to acquire a comparatively non-vascular, pale, and, in fact, cicatricial aspect.

ON A FEW

ABNORMALITIES AND CERTAIN MORBID CONDITIONS MET WITH IN RECRUITS.

BY A. LEITH ADAMS, M.B., F.R.S.,
SURGEON-MAJOR, LONDON RECRUITING DISTRICT.

No I.

THE following notes were taken during the physical examination of over 25,000 recruits; and although referring to conditions already known and for the most part carefully described, it seems to me important that the recorded data, especially in connexion with the heredity of certain abnormalities, should be further illustrated, and the results arrived at by Sedgwick, Prosper, Lucas, Darwin, and others, confirmed as far as possible, more especially the laws in connexion with sexual heredity and atavism. It must be further understood, in relation to the following, that the statements as regards the hereditary characters of the cases are given on the authority of the recruits affected; and although inheritance could not always be traced, it must not be accepted in such instances that nothing of the kind existed. I have made no attempt at any systematic classification of the subjects, and give them much in their order of occurrence in my note-book.

Nævi materni, or congenital discolorations of the skin—to wit, "moles," "birth stains," and leucodermic patches.—I have a mass of notes with reference to these abnormal discolorations and their undoubted heredity. They occur on almost every region of the body, and embrace a great variety of colour and form. When circumscribed, smooth or hairy, and of a red, brown, or black colour, they are vulgarly called "moles"; whilst fainter splashes, of irregular outline, are usually styled "birth stains."

Of several hundred persons whom I interrogated as to the reputed cause of these marks in connexion with the mother, there were received replies from a great majority ascribing the abnormality to some incident that occurred (a fright, or longing for some article of food) during gestation. Thus, an oblong black mole on the calf of the leg was the result of the man's mother longing for a sausage. A black hairy patch on the forearm was caused by being frightened by a mouse. Bright-red strawberry marks were associated with an earnest desire on the part of the mother for that fruit, or for a lobster or red cabbage. Moreover, besides often fanciful resemblances to these and other objects, there is a belief that the fruit-stains get brighter at the season when the fruit is ripe. Altogether, the pertinacity wherewith many mothers adhere to their views on the etiology of birth stains is remarkable, and in consequence it is often difficult to trace any inheritance. There can be no doubt whatever that, independent of emotions, there is a tendency on the part of these discolorations to get brighter and more pronounced at certain seasons than at others, and to be influenced in this respect by climate and the health of the individual. Instances of melanosis resulting from fright, and of grey hairs having succeeded severe grief, are recorded; and if it is admitted that such conditions are compatible with sudden and severe mental emotions, is there any reason why many forms of nævi materni may not have been brought about by the same influences during gestation? Might the reversion to a lost character in the fœtus be in part or altogether reproduced by shocks of fear, deep sorrow, horror, &c., on the parent? The situations where moles chiefly occur are the hips, the loins, the spine, and between the shoulders; they are also common on the epigastrium, and least plentiful on the extremities and head. The colour is not determinable by the temperament; jet-black hairy moles being often seen on persons with very light hair and light-coloured irides. Of fifty instances promiscuously taken during the physical examination of recruits, no less than twenty asserted that marks of precisely the same character and on exactly the same spot were present in one or other parent, or in one or more of their children.

"Moles" are divisible into—1st. The black naked or hairy mole, which varies much in size and shape, and very frequently appears on the extremities, especially on the buttock or shoulder. The hairs are generally long, dense, and black; sometimes the surface is granulated ("goose-skinned"); and the elevated mole, surrounded by a white zone, has all the aspect of a detached portion of the skin of any of the lower animals—to wit, the ape. Often this discoloration has a bronzed aspect, with or without hair. 2nd. There are various shades of brown-coloured moles, which are not frequently covered with hair, nor are they partial to certain regions. 3rd. The red mole varies in character and colour from an aneurismal varix to a simple red-brown stain. Sometimes it is purple or intense red, brick-coloured, or pale-red. It is oftenest met with on the hips and lower extremities.

"Birth stains" are irregular-shaped discolorations, less defined in outline than moles, and usually fainter in colour, often blending imperceptibly with the normal colour. They are occasionally very large, in the shape of light-brown, black, or red splashes on the hips, sacrum, and sides of the body or elsewhere; sometimes hairy; or numerous, as in the shape of "freckles," which are also well known to be hereditary.

As a general rule, it was found that seldom a person presented himself with *numerous* moles on the body who did not assert that one or other of his blood-relatives was also conspicuously marked in the same manner, whether in the exactly same spot or not. Whatever may give rise to these cuticular discolorations, they are undoubtedly hereditary in very many cases, but not apparently sexual; whilst others—to wit, the large purple and red splashes affecting superficial bloodvessels—often occur without any traceable inheritance; and curious instances have been recorded, on good medical authority, of sudden shocks to the pregnant female,* and many other coincidences which may or may not be correlative. A "clean skin," in the sense of a natural absence of the above, and general smoothness, are most assuredly inherited. How far habits and modes of living affect either is a question I am unable to answer; and I shall not pronounce judgment on the very pithecoid, black, hairy moles,—whether or not they be unmeaning *lusus naturæ*, or a vestige of the ancient dermal covering of man. It is no answer to the question of their origin to merely state that they depend on an "excess of colouring matter in the skin," and are "melanotic patches." The differences, however, between such cuticular discolorations and the red splashes dependent on abnormal conditions of the bloodvessels are of course quite specific, and have no probable relation whatever. As to the sexual heredity of moles in general, I could not connect them with either parent in particular; the mother being as often affected as the father, and the daughters and sons partook of the abnormality promiscuously.

With reference to "leucodermic marks." These were often covered with white hairs on swarthy-skinned persons, also mulattos and half-castes. They were often seen on the genital organs and pubes, and less frequently on the front of the chest, back, and hips. Several asserted to have observed their own condition in relatives. All were indisputably congenital; and frequently persons with dark skins and light-blue or grey irides had paler coloured patches on certain regions, and the hair was invariably the same colour as the patch. In one instance a man, aged twenty-five, had a dark, swarthy skin and light-blue irides, with a bare leucodermic patch on the belly, and a white tuft of hair on the pubes. The hair on the head was prematurely grey, which he said was a family state. In another there was bronzed skin, in great splashes, on the trunk; none on the lower extremities, nor on the hands and arms and face. All had been disappearing steadily for several years. Present age nineteen. Another had light-brown splash on the abdomen, surrounding islands of natural-coloured skin; there were smaller patches of the same sort in the armpits. Large oblong black mole on the back of right forearm. Face and throat bronzed. His mother and her brother were similarly marked, but only as regards the bronze colour. He has one sister not marked. His mother has married again,

* THE LANCET, 1840, pp. 862 and 900.

and has four children, none of whom are so distinguished. The mole was attributed by the mother to a black pudding for which she had a predilection during gestation.

Development of female characters in the male.—Instances of transmission of characters peculiar to the female were now and then noticed, chiefly among the undergrowth or stunted lads of London; indeed, we find among the under-sized youths of large cities frequent indications of feminine characters, which, as regards the skeleton, are seemingly sure signs of deterioration of race. This poor type of humanity is easily distinguished by the following particulars, which, of course, vary in individuals:—The matured stature is usually from 63½ in. to 64 in. or 65 in.; and is generally attained before twenty years of age, and very rarely exceeded afterwards. The weight varies from 110lb. to 120lb. Habits active, and he is intelligent as compared with the larger countryman. The countenance is pallid. There is generally an absence or sparseness of moustache and whisker, and the hair is often black and straight. The shoulders slope, and the scapulæ meet when the shoulders are braced back; or project in a very conspicuous manner, so as to give an utterly erroneous estimate of the girth of the thorax when the tape is passed across them in accordance with the directions laid down in Recruiting Orders. The chest is flat in front, and the pelvis broad and expansive, more especially the ossa innominata,* giving a conspicuous feminine roundness to the hips. The bones are small, yet often, for their size, fairly covered. Sometimes, as will be observed presently, there is unusual development of the mammary glands; and in several instances I have observed abnormal thickening of the soft parts over the pubes. The genital organs are usually small, and the prepuce often phimosial. Varicocele is very common, and with scarcely an exception on the left side; also extensive decay of teeth, more especially molars. The latter state is unquestionably hereditary. This specimen of what may be very justly styled "a marked degeneracy of race," is of all recruits the one to be avoided, for the simple reason that he gives the smallest promise of physical improvement.

Enlargement of the mammary organs in the male.—The following remarkable instances of this feminine character were recorded:—

(*a*) A German by birth, aged eighteen, in height five feet nine inches, very fat, with a feminine, soft countenance, sloping shoulders, large pelvis, small genital organs, but manly voice, had enormously developed mammæ, with projecting nipples; no areolæ. The glands were large, hard, and resembled a female's at puberty.

(*b*) A boy aged sixteen, just showing symptoms of puberty, with slight appearance of hair on pubes; scrotum relaxed and testes enlarging. He had inordinate enlargement of the breasts and fully developed mammary glands, with large projecting nipples and light-brown areolæ.

(*c*) A lad aged eighteen, with muscular frame. Mammary organs normal, excepting the nipples, which were of the dimensions of a suckling female's, and pendent, with dark-brown areolæ.

(*d*) A pale, sickly lad, aged eighteen, with feminine features, had enlarged mammary glands, with large and projecting nipples; otherwise the characters were masculine.

(*e*) A delicate lad, aged eighteen, showed a feminine aspect only in the face and breasts; the last were much enlarged, and glands well developed; also the nipples were prominent and surrounded by dark areolæ, with their follicles nearly as distinct as in pregnant females.

(*f*) A healthy, manly-looking boy, between fifteen and sixteen years of age, with genital organs commencing signs of puberty, had remarkable enlargement of the breasts and glands, with their nipples projecting, as in a girl of the same age.

(*g*) A lad aged eighteen, with soft feminine features, had largely developed breasts, with glands and nipples enlarged to a remarkable extent; no areolæ. This was the only instance where the individual could say whether any of his relatives were similarly formed. He stated that two brothers had the same peculiarity of the breasts.

The transmission to the male of female organs, and *vice versâ*, is well known to naturalists in connexion with the lower animals and plants. And although it is curious to find functionally perfect mammary glands in the male, it is equally strange that he should possess nipples at all, unless we concur with Mr. Darwin in his masterly interpretations.*

Bicoloration of the iris was not uncommon, and in almost every instance was traced to the mother's side.†

Absence of the prepuce was noted in several cases, and in none could any Jewish descent be ascertained, nor, of course, under the circumstances, could an hereditary character be determined. The same appertains to congenital phimosis. "Born circumcised" has been shown by Blumenbach to prevail among German Jews.‡

Varicocele.—There was no defect more common than varicocele, more especially among city-bred youths and chiefly persons pursuing in-door occupations. Of the many thousand instances which came under observation, with scarcely a single exception, the condition was confined to the left side. The presence of varicocele in very many boys of twelve and fourteen years of age indicated a congenital and probably also an hereditary origin. A very large majority of the cases occurred in persons deficient in bodily vigour and in frames of a low physical standard; indeed, it is rather the exception to find a total absence of varicocele among the stunted undergrowth of large cities. The connexion between the condition and a varicose disposition of the veins generally, as affirmed by some observers, was not clear, although now and then varix of the superficial veins of the lower extremities and varicocele were present in the same individual. Excessive relaxation of the scrotum and atrophy of the testes accompanied the more aggravated cases. From the appearance of the genitals and general aspect of the individual I was impressed with the belief that the condition, if not often caused, is most assuredly aggravated, by vicious propensities.

* A remarkable instance of an enlarged pelvis gave as much as 14in. breadth from one anterior superior spinous process to the other, with an unusual development of the false ribs, which came within 3in. of the crest of the ilium, in a lad of a marked feminine aspect 5ft. 4½in. in height, and aged eighteen years.

* Descent of Man, vol. ii., p. 35.
† THE LANCET, 1862, p. 619.
‡ Animals and Plants under Domestication, vol. ii., p. 35.

CASE OF IDIOPATHIC TETANUS.

BY WM. KNIGHT TREVES, F.R.C.S.,
SURGEON TO THE NATIONAL HOSPITAL FOR SCROFULA.

ON Nov. 24th I was called to a small village, some few miles distant, to see a boy whom I found presenting well-marked symptoms of tetanus. After examining the patient I obtained the following account of his previous history. The boy, aged thirteen, is by occupation a sheep-keeper, an employment which compels him to rise very early in the morning and exposes him a great deal to cold and damp. During the past two months, however, he can name no certain time when he was particularly cold or wet—so wet as to necessitate a change of clothes, or so cold as to make especial mention of it. He has suffered—during, at least, the last two months or more—from no external lesion of any kind that either he or his friends can remember, and a careful examination of his body shows no evidence of even the most trifling wound or bruise. His mother states that he has suffered from worms for many years past, but none could be detected in all the stools passed while the boy was under notice, notwithstanding that when convalescent anthelmintics were freely administered. The boy has always been weakly and of a nervous temperament, but has up to this time suffered from no serious illness, and appears to be fairly nourished. The first symptom was noticed on the 20th of November, when the boy, returning from the fields at noon for his dinner, complained that "he really couldn't eat, his teeth ached so." He was considered to have caught a slight cold, and, not feeling very well, was kept in doors the remainder of the day. Next morning he noticed that his jaw was beginning to get stiff, but with this exception he felt pretty well up to 2 P.M., when he was suddenly seized with a violent "spasm in his belly," as his mother terms it, which bent him abruptly forwards, causing him at the same time great pain. Another of these spasms occurred at 8 P.M. On the occasion of each of these attacks his face was "twitched" and became a little painful.

Nov. 22nd.—Felt better all day; his jaw was, however, becoming stiffer and was somewhat painful, there being moreover some slight distortion of the face.

23rd.—Patient not so well. He was seized during the day with four spasms, all of which occurred between 1 P.M. and 3 P.M. On the occurrence of each of these spasms he was bent suddenly forwards, being at the same time seized with such acute pain in his abdomen as to cause him to scream out; so violent were these attacks that it was thought fit immediately to call in medical aid.

On the 24th I first saw the boy. His jaw was so far stiffened as to prevent him from opening his mouth more than half way. The risus sardonicus was tolerably well marked, and pain was complained of in the jaws and face. The abdominal muscles were slightly hard and tense, and, together with the facial muscles, were subjected to occasional but very trifling spasms. About 9 P.M. he had two more violent abdominal spasms, following each other in quick succession, the boy being on each occasion bent abruptly forwards.

25th.—Other muscles are becoming affected; his abdomen is more tense, his legs are becoming stiffened, so that he experiences difficulty in moving them; the muscles of the back are also affected, and the risus sardonicus is well marked. He has now almost constant spasmodic pains in his abdomen, which occur in conjunction with spasm of the other muscles, and are much more frequent, coming on every twenty minutes, but which no longer bend him forward, but rather tend to stiffen the body.

26th.—Body perfectly rigid; slight opisthotonos; patient unable to sleep and capable of taking but little if any nourishment; but few spasms during the day.

27th, 28th, 29th.—About the same; increasing rigidity, attended, however, with but little spasm. Morphia given to produce sleep.

30th.—Had severe spasms nearly the whole day, occurring about every ten minutes, attended with much pain, complained of as being most intense in the groin. During the paroxysms, the teeth being spasmodically clenched, the tongue is much bitten, and a wooden bit has been fastened into the mouth. Arms still unaffected.

Up to this time the spasms had been more or less general, but it was noticed that they now occurred much more markedly on the right than on the left side; to use the patient's own expression, "they had left his left side and gone into his right"; the pain too was now very much more intense on the right than on the left side of the body. During the more violent spasms there was slightly marked pleurosthotonos. This, to an extent, partial tetanus would not seem from recorded cases to be of very uncommon occurrence in the idiopathic form of the disease.

Dec. 1st and 2nd.—Spasms more frequent and intense, being brought on by the slightest movements; they are more violent in the night than in the day, occurring, when present, about every fifteen minutes; but they may be absent for hours together in the daytime.

3rd.—Patient worse; spasms still very frequent and intense; the pectoral muscles are now noticed to be affected, the shoulders being drawn a little forward, the right more so than the left; the muscles of the arm and forearm are still in all respects normal. Notwithstanding largish doses of morphia the boy is unable to sleep, and is, moreover, incapable of taking any but the most trifling amount of nourishment.

5th.—Seems a little better; the spasms have decreased in frequency and intensity; the pectoral muscles have almost completely relaxed; the jaw is no closer. The boy now lies quite flat in bed and is able to sleep a little.

6th.—Still better; has now but few spasms and complains much less of pain; muscles of abdomen and back less tense; sleeps and takes food better.

10th.—Patient has scarcely any spasms at all now; muscles much more relaxed; can now flex and extend his leg and thigh; sleeps much better (still with morphia), and begins to take nourishment more freely.

13th.—Spasms quite gone; slept last night without morphia. The muscles of his lower extremities are now quite relaxed; abdomen still a little tense, and jaw still somewhat stiff.

16th.—Patient very rapidly improving, complaining, indeed, of extreme weakness only; muscular relaxation now everywhere complete; eats and sleeps well.

19th.—The boy might now be considered as quite recovered; he can sit up in bed, and complains only of weakness; his appetite is excellent.

Throughout the whole period of the disease there was profuse urinary secretion, sufficiently profuse to cause the patient's mother to mention it spontaneously. The pulse and temperature were during the course of the attack, as a rule, but little above normal. Severe and continued paroxysms, however, were followed by free perspiration, a rise in the temperature of from two to three degrees, with increased rapidity of pulse and respiration: thus on the mornings of Dec. 1st, 2nd, and 3rd the patient was found to be feverish, with a somewhat high temperature and pulse. It was noticed in this case that the muscles relaxed in an order reverse to that in which they contracted: thus the muscles of the shoulder, the last to contract, were the first to relax; while the muscles of the jaw and abdomen were the last to become normal, retaining their rigidity to a great extent when the lower extremities could be already moved with ease. If this condition be found to be constant in cases of tetanus it might prove of some little value in ascertaining the progress of the disease; for if one set of muscles be found to be attacked on one day and on the next day perhaps to be relaxed, it would suggest—although the other symptoms were unfavourable—that the disease had ceased to make progress. As regards treatment, the bowels, which had been previously somewhat irregular, were kept well and constantly opened, and morphia was given during the acuter stage of the disease to relieve pain and procure sleep. The morphia was administered internally in doses of one-sixth of a grain, to be given at intervals until some effect was produced. In this way a grain and more would, on an average, be given a day.

Margate.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum allorum, tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. THOMAS'S HOSPITAL.

CASES OF TUBERCULAR MENINGITIS.

SUBJOINED is the third case of the series which was commenced at page 266. For the following notes we are indebted to Dr. Greenfield, medical registrar.

This case presents an example of the so-called "primary" form of the disease occurring in the adult. Pathologically, however, it must be regarded as secondary to the old disease of the bronchial glands. It will be observed that the early symptoms of the case were such as might have been due to enteric fever; but the severe headache and vomiting led to the suspicion of the more serious meningitic disease. The other noteworthy points in the case are, the absence of irregularity of the pulse whilst the patient was under observation, and the long duration—nearly four weeks, if the patient's statement could be believed. But she had no friends, and was herself hardly in a state to remember precisely. The temperature, it will be noticed, was, as a rule, higher than in the two previous cases.

CASE 3.—Ellen H——, a servant, aged twenty, was admitted under Dr. Bristowe's care on June 20th, 1873. She stated that she had had good health till the present illness, which began about three weeks ago with pains in the head and limbs, and feverishness, together with some diarrhœa. The headache had been very severe from the onset of the attack, and there has been some vomiting, which has been much more frequent during the past week. Has been subject to a slight cough; never spat blood. The bowels have been open daily.

On admission, at 9.30 P.M., her condition was as follows:—Is of good figure, well nourished, rather stout. Complains

of severe pain in head, and of general tenderness. Aspect heavy, somnolent; pained expression of countenance; groans frequently. Face rather dusky, especially about eyelids; pupils somewhat dilated; right rather larger than left; some photophobia. Tongue dry, red at tip, coated on dorsum; sordes on teeth. Abdominal muscles tense, retracted; considerable tenderness on pressure, especially in the right iliac and splenic regions. No tâche cérébrale. Heart sounds healthy; chest fairly resonant, but right apex less so than left. Breath sounds cannot be distinguished on account of the constant groaning. No spinal tenderness. Temperature 102·5°; pulse 84, jerking, incompressible, regular.

June 21st.—Has rambled a little during the night, and still does so occasionally; has not vomited since admission, and the bowels have not been opened. Temperature: 9 A.M., 101·5°; 9 P.M., 102°. Pulse 84 to 90, regular. Ordered five grains of quinine three times a day.

22nd.—Very drowsy, but sensible; still complains of severe pain in the head, chiefly frontal; she lies on her side with head thrown back, and resists movement, but there is no muscular rigidity. Pupils widely dilated, equal; do not act well to light; no strabismus; sees singly; some photophobia. No paralysis of face. Tongue still thickly coated. Pressure over the abdomen appears to cause great pain, but there is general hyperæsthesia of the trunk. Temperature 101·7°; pulse 82, regular and equal, full and somewhat hard; respiration 22. Head shaved and ice applied to scalp.—9 P.M.: Much less conscious; answers when shaken and loudly questioned, but then again becomes speedily unconscious; no affection of speech; she complains, when roused, of severe pain in the nape of the neck. Temperature 101·4°.

23rd.—Is now quite unconscious, comatose, cannot be roused. Pupils equal, acting to light rather slowly; no strabismus, but both eyes are turned towards the right side. She lies quietly, without movement. Skin dry, hot to touch. Temperature 103·2°; pulse 112, full, regular; respiration 44, regular.—*Ophthalmoscopic examination:* Right eye—retinal vessels full, especially veins, which are tortuous; outline of disc indistinct and cloudy; no appearance of exudation. Left eye—veins distended, tortuous; outline of disc indistinct; appearances similar to those in right eye, but less advanced.

24th.—Still comatose, quiet; has not moved since yesterday morning; eyelids half closed; no apparent strabismus; pupils contract and dilate irregularly; the left pupil is larger than the right; no vomiting; seems unable to swallow. Temperature 102·8°; pulse 144; respiration 48.

26th.—Still remains comatose; breathing rapid; dusky flush on cheeks; right eye half open; left eyelid droops; left pupil dilated and insensible to light; left eyeball nearly motionless, turned inwards; occasional twitching movements of both eyeballs. Temperature 102·8°; pulse, 150, weak, jerking, dicrotous; respiration 48. Sibilant and moist râles throughout the front of chest. Death occurred at 2 P.M.

Autopsy, twenty-four hours after death.—Body well nourished, with abundant subcutaneous fat.—Pleuræ: Firm adhesions throughout left, none on right side, and no fluid.—Lungs: Both somewhat congested, particularly the left, partly hypostatic; both studded throughout with grey granulations rather sparsely scattered, but most abundant towards the apex of the right lung, none of them at all yellow or opaque. In addition to these there are a few patches of partial consolidation resembling grey pneumonic hepatisation, but less dense and uniform. The bronchial mucous membrane is much congested. Bronchial glands very large, forming two or three masses which measure about two inches in length by one in diameter, in an advanced state of caseous degeneration, and softened in some parts, evidently from disease of long standing.—Heart normal.—Liver: Numerous granulations on the capsule and in its substance, mostly grey and translucent.—Spleen not enlarged; contains very numerous grey and yellow granulations.—Kidneys large, pale, contain numerous masses of aggregated granulations, yellowish and grey, and one or two yellow nodules of larger size.—Intestines: A few granulations in the ileum; no ulceration. Mesenteric glands enlarged, vascular, with yellow caseating patches seen on section.—Brain: Presents the usual appearance of this disease; but the exudation is more than usually abundant on the upper surface of the cerebellum, and the fornix is completely softened and destroyed.

[In the description of the post-mortem appearances of the second case, p. 298, col. 2, line 24, for "lobe" read "hemisphere."]

ST. BARTHOLOMEW'S HOSPITAL.

FOREIGN BODY IN THE LARYNX REQUIRING TRACHEOTOMY.

(Under the care of Mr. HOLDEN.)

THE following case, for the notes of which we are indebted to Mr. Steavenson, house-surgeon, is interesting in several particulars. First, it illustrates the manner by which foreign bodies ordinarily get into the larynx—namely, during a sudden inspiration, when the muscles which guard the glottis are taken unawares, and not, as many suppose, during the process of deglutition. Secondly, the case is a good example of the nature of the symptoms usually met with when a small foreign body remains within the larynx, and does not fall into the trachea or bronchi. If, however, the body be large or irregular, its presence in the larynx gives rise to very severe and urgent symptoms. Practically, it is often difficult to decide whether an operation should be performed in a case where a foreign body is in the larynx but does not occasion much distress. Upon the whole, it may be regarded as the best practice to perform tracheotomy early, and especially if there be any indication that the air does not freely enter the lungs. Whether the foreign body should be sought after and removed at the time of operation will depend chiefly on its size and situation, and also on the character of the symptoms occasioned by its presence. The treatment adopted in the subjoined case is evidently suitable for all similar cases, and is attended with the smallest possible amount of disturbance—constitutional and local.

Annie S——, aged eight years, was admitted into the hospital on Nov. 30th, with the following history:—On Friday, Nov. 28th, she was playing with a toy having a whistle at one end of it, and, during an inspiration, drew into her larynx the small segment of wood which was fitted into the end of the whistle. It caused a fit of coughing and obstruction during inspiration. She was taken to a medical man, who passed his finger down the throat and also turned her upside-down and slapped her on the back, but without any result. She was brought to the hospital early on the morning of the 30th, when a digital examination was made, and a probang was also passed, in the hope that it might be in the œsophagus. The child expressed herself as being relieved, but the parents were told to bring her back during the day if the breathing was not better. She was brought back to the hospital at 12.30 P.M., when a laryngoscopic examination was made, but nothing could be detected. The child complained of slight pain about the thyroid cartilage, and, placing a stethoscope over that region, a loud wheezing, croupy sound could be heard with every inspiration. The same sound was audible with different degrees of intensity all over the chest, but loudest just beneath the thyroid cartilage. She was then admitted into the hospital. Having suffered from a cold during the previous week, she was ordered syrup of poppies and oxymel of squills of each half a drachm every six hours, in the hope that with rest in bed and under the influence of the narcotic the piece of wood, if still in her larynx, might become coated with mucus and coughed up.

Dec. 1st.—Condition much the same as on admission. Air enters both lungs equally, but not in sufficient quantity; there is considerable depression of supra-sternal and clavicular regions during each inspiration; she coughs occasionally, but not in paroxysms; breathes slowly and regularly; the voice is low and hoarse; breathing is slightly worse at night, but she sleeps well.

2nd.—No improvement in the breathing; condition of thoracic viscera unchanged. Respiration 18 in the minute. Sits up in bed playing with toys. Tracheotomy instruments kept ready in the ward in case of any sudden paroxysm of dyspnœa.

3rd.—Condition unaltered; has had no paroxysm of dyspnœa; voice slightly improved.

4th.—She has had no paroxysm, but the entrance of air is rather more obstructed this morning. The chest was

examined by Dr. Harris; the breathing was found equal on both sides, but not much air entered the lungs. After a short consultation, Mr. Holden, believing the piece of wood to be either in the larynx or a little below it, determined to have the child placed under chloroform, and to perform tracheotomy, if the foreign body could not be reached by the finger or the forceps. As nothing could be felt with the finger, tracheotomy was performed above the isthmus of the thyroid gland. The operation was very troublesome on account of the number and distension of the veins cut through at every step. These bleeding vessels were ligatured one by one. The trachea was abnormally small, and even when the opening was made there was great difficulty in introducing the tube. Partly from the above cause, and partly from the blood which obstructed the view, for a minute or two the child's life was in danger. After the introduction of the tube the breathing was much relieved, and all dyspnœa passed off at once, showing that the obstruction was above the opening in the trachea. Mr. Holden, however, did not make any exploratory attempts to find the piece of wood, but hoped that, as the irritability of the glottis subsided, the foreign body would be coughed up through it. The child was placed in a tent cot near the fire, and kept at a temperature between 60° and 70° F. Steam was introduced under the tent by india-rubber tubing, so that the patient was kept in a warm, moist atmosphere. The dressers and some of the other students took turns (of two hours each) in sitting up with and watching the patient, lest the tube should become clogged with mucus, or some other accident occur.

5th.—The patient breathes easily and looks well. Foreign body not yet discovered.

6th.—This morning, about 9 A.M., whilst coughing she said that she felt the piece of wood come up into her mouth, and thought she would have brought it up completely, but instead of that she swallowed it. The tube became several times blocked up with mucus, and was moved, cleansed, and replaced by the dresser on duty.

7th.—About 1 P.M. to-day had a motion; this was searched and the piece of wood found; it had taken twenty-eight hours to perform its journey through the alimentary canal. It measured three-eighths of an inch by one-eighth. The tube was then removed from the trachea, and the wound dressed with oiled lint.

9th.—Granulations thrown out from the cut edges of the trachea. Voice nearly the same as previous to the operation. No pain.

12th.—Wound healing fast. Voice completely restored. Breathes noiselessly.

19th.—Up and about the ward; only slight superficial wound remaining.

January 1st, 1874.—A small abscess formed yesterday on the left side of the wound, which was opened this morning, and about a teaspoonful of pus let out.

25th.—Discharged from the hospital, both wounds completely healed.

NOTTINGHAM GENERAL HOSPITAL.

A SUCCESSION OF EPILEPTIC CONVULSIONS CUT SHORT BY LARGE DOSES OF BROMIDE OF POTASSIUM.

(Under the care of Dr. RANSOM.)

THE following case, for the notes of which we are indebted to Dr. Ottley, is interesting in several particulars. Firstly, as regards the severity and frequency of the fits; secondly, as regards the enormous doses of bromide of potassium that were given and tolerated; and, thirdly, the rapid and marked benefit that followed this treatment. The mental condition after the fits, and the temporary paralysis of the most affected muscles, are also matters worthy of notice.

Wm. L——, a turner, aged twenty-one, was admitted into the hospital on Nov. 29th, suffering from a succession of convulsive attacks, which had begun on the afternoon of the 28th. He was for the most part quite unconscious, and the following history was not obtained until his recovery. About four years ago he began to suffer from epilepsy. The fits were almost always nocturnal, and the only evidence he had of them, apart from what his mother told him, was a feeling of great lassitude on the following morning. They were never frequent, and he believes that he has been free from them for twelve months before the present attack.

On Nov. 28th, whilst at work, he fell down in a fit. This was followed by a second before he had fully recovered, and until Nov. 30th the paroxysms increased in frequency. Between these dates he had not, it is believed, been three hours without convulsion, and in the intervals had never been thoroughly conscious, though able to say a few words and to give indications of pain.

On Nov. 30th the convulsions were very frequent. He had five in twenty-five minutes, and they had the following character. The face was first drawn to the left side, and the eyeballs rolled in the same direction; the left hand was clenched, the thumb being placed between index and middle fingers, and the respiration was arrested; the clonic stage soon followed, in which the movements were much more marked on the left side; the face became dusky, and the veins of the neck much distended. The tongue was not bitten. As the convulsion ceased the eyeballs and face were slowly turned to the right side. Respiration was accelerated, 50 or 60 per minute, and the patient passed into a torpid, almost comatose state, in which he could swallow and could move his right arm and leg, though not those on the left side. Immediately before the attack the pupils were small, during it they increased greatly, and in the third stage returned to their normal size. At noon he began taking twenty grains of bromide of potassium every hour. At 12.30 the fits were less frequent. From 1.30 till 5.40 there was no convulsion, and at 9 P.M. the last fit occurred.

On the following day, Dec. 1st, he slept much, and complained occasionally of some abdominal pains.

Dec. 2nd.—Last night he had little sleep, was delirious, and shouted constantly. This morning the movements on the left side are weak and imperfect, but this weakness does not amount to hemiplegia.

14th.—He continues to improve. There is now no impairment of motion or sensation on either side. He has occasional occipital headache, but this has been absent for the last two days, and he considers himself in his usual health.

The following is a summary of the treatment:—On Dec. 1 the bromide was decreased to twenty grains every four hours, on the 5th twenty grains three times a day, on the 8th ten grains three times a day. On the 14th he was ordered, afresh, twenty grains three times a day, which will be continued for twelve months.

Jan. 26th.—Has continued to take the bromide, and so far has had no return of the convulsion. He now attends as an out-patient.

HÔPITAL ST. LOUIS, PARIS.

TWO CASES OF PENETRATING WOUND OF THE ABDOMEN, WITH ISSUE OF THE EPIPLOON, ENDING IN RECOVERY.

(Under the care of Dr. PÉAN.)

WE are indebted to Mr. Urdy, house-surgeon to the hospital, for the notes of the following cases.

CASE 1.—The wound was seated in the left hypochondrium, and was caused by a gouge. Hæmorrhage occurred, and the epiploon came through. When admitted into the hospital, the epiploon formed a tumour of the size of a nut; it was strangulated by the lips of the wound, but was not very painful. Ice was ordered to be constantly applied to the abdomen, so as to ward off consecutive inflammation, and occlusion was effected by means of goldbeaters'-skin and collodion. After three days the use of ice was discontinued. No reaction occurred; obstinate constipation was observed. Three successive doses of saline purgatives were required to bring on a *débâcle*, or breaking up of fæcal matter. Eight days after, the goldbeaters'-skin was removed, and lint was simply applied. The tumour had diminished, and was painless; it was very vascular, and fleshy granulations of an excellent character were noticed on the epiploon. On the 29th October (fourteen days after admission) the patient left the wards. There existed a tumour of the size of a small cherry; the surrounding part of the pedicle was hardened, and a kind of puffiness extending into the abdomen was to be noticed.

CASE 2.—The above case may be compared with another one admitted some time previously into the wards. The

patient had received a cut with a knife slightly below the epigastrium on the mesial line. The protruded epiploon formed a tumour of the size of the fist. The surgical treatment was the same. Healing was left to nature, and all went on safely and nicely. At the end of two months the tumour had diminished to the size of a nut, and offered the same characters as the one above described. The process of disappearance of the tumour is effected by means of suppuration and of decreasing size; it returns gradually into the abdomen.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

TUESDAY, FEB. 24TH, 1874.

DR. C. J. B. WILLIAMS, F.R.S., PRESIDENT, IN THE CHAIR.

CASES OF (SO-CALLED) ICHTHYOSIS LINGUÆ.

BY W. FAIRLIE CLARKE, M.A. (OXON.), F.R.C.S., ASSISTANT-SURGEON TO CHARING-CROSS HOSPITAL.

THE term "ichthyosis" was first applied to a morbid condition of the tongue by Mr. Hulke in 1864. In its earlier stages the disease has something in common with warts and corns, and with "papillary tumours of the gum." But it is distinguished both pathologically and clinically from these affections in two ways. (1) It attacks only the tongue and the inside of the mouth; no other mucous membrane is subject to such an affection. (2) It slowly spreads, but gives only slight inconvenience and no pain. In this state it may remain many years, but sooner or later it assumes the characters of epithelial cancer.

Ichthyosis linguæ manifests itself in an overgrowth of the papillary and epithelial elements of the mucous membrane, and it is the dorsum of the tongue which is affected in the majority of instances. In some cases the enlarged papillæ may be seen sprouting up in small groups, in others the whole of the affected surface is smooth, hard, and almost cartilaginous. It presents either a silvery or a snow-white appearance, quite different from any fur which ordinarily covers the tongue. When the disease has once manifested itself, it is very persistent. Though it sometimes responds a little to treatment, and though it varies slightly, it never wholly leaves a spot which it has once attacked.

The essential nature of the disease appears to be that of a chronic inflammation, accompanied by an overgrowth of the papillæ and a loss of power to throw off the effete epithelium. The irritation which gives rise to this inflammation sometimes acts on the periphery of the nerves, and sometimes it is situated between the periphery and the centre. It would appear that any persistent or oft-repeated irritation of the lingual branches of the fifth pair is capable of causing the disease in persons who have a strong inborn tendency to the development of warty growths under slight causes.

If a portion of the ichthyotic coating be examined under the microscope, some increase in the thickness of the epithelial layer is seen, some enlargement also of the papillæ, and a great development of the rete mucosum. Around the bases of the papillæ, and in the submucous and muscular tissues, there is a very abundant nuclear cell-growth. There is also a notable increase in the number and size of the bloodvessels in all parts. When the disease reaches the stage of epithelial cancer, the most striking feature is the development of the rete. It increases enormously at the expense of the papillæ, reducing them in many places to mere threads, and dipping down between them in the form of large club-shaped processes. Towards the termination of some of these processes the cells may be seen to have assumed a circular arrangement, forming the laminated capsules, or nests of cells, that are so characteristic of epithelioma. These points are illustrated by microscopical sections and drawings.

Nine cases of ichthyosis linguæ are related at length, some of which were under the author's own care, while others have been communicated by friends or gleaned from publications. In an appendix eight more cases are briefly noticed. Several of the cases are illustrated by drawings.

The paper concludes with some general remarks upon the disease and its treatment. 1. It is much more common in men than in women. Out of sixteen cases (one being set aside for special reasons) only one was a female. 2. It never occurs before puberty. It is an affection of early manhood and of middle age. 3. Though a venereal ulceration may occasionally be its starting-point, there is no reason to think that it is always associated with syphilis. On the contrary, it is clearly distinguished from the manifestations of that disease. 4. With regard to treatment:—If the disease presents itself in a very early stage, it should be promptly and thoroughly excised. On the other hand, when it has become epitheliomatous, no time should be lost in performing an operation. But during the whole middle period the best thing that can be done for the patient is to study his general health. If any local measures are used they should be of an unirritating kind. If any jagged teeth are present they should be removed. At the same time the patient should be advised to guard his tongue against all sources of irritation, and to pay particular attention to his digestion. Under this treatment the ichthyotic coating often alters for the better, though it is never altogether removed.

Mr. ACTON said he had seen many affections of the tongue, especially from syphilis. He was not aware of the disease called "ichthyosis." He had examined the tongue of the patient exhibited, but would call it "psoriasis," an affection which is a common attendant upon syphilis. He had seen ichthyosis of the body, and it differed from this on the tongue. One of the most frequent causes, but not the only one, was syphilis; then the irritation from broken teeth, tobacco-pipes, &c. The affection had been noticed in India, and he had seen many Indians who suffered from it. It was not difficult to diagnose before ulceration; but if there was ulceration, it was difficult to say whether it was a gummatous tumour or an epithelial cancer till the microscope was used. He would like to hear how the author of the paper distinguished them. He thought, if psoriasis of the tongue was seen early, local treatment did good; if there was ulceration, large doses of iodide and bromide of potassium were useful. The author's remarks on the general treatment were very good. He was sorry to hear that the author considered the disease so fatal.

Mr. HULKE thought the profession was indebted to Mr. Clarke and Mr. Morris for bringing so many cases forward. Ten years ago he brought the first case before the Society. It was not published in the Transactions; and this he the less regretted, as it gave him the opportunity, six years later, of bringing the case, with fuller details, and when epithelioma had supervened, before the Clinical Society. The patient was a strong, healthy man. There was no evidence of syphilis in him or any of his family. He (Mr. Hulke) had seen some half-dozen other cases, and in most of them no evidence of syphilis. His strong impression was that, in the majority of cases, syphilis had nothing whatever to do with it. Sir J. Paget had remarked upon the close parallelism between ichthyosis of the skin and the affection of the tongue; and approved of the name ichthyosis. Mr. Clarke had pushed the anatomy farther than he had been able to do, as he (Mr. Hulke) had examined sections six years before epithelioma supervened, and the change was then exclusively confined to the epithelial and the immediately subjacent tissue. He did not quite follow Mr. Clarke when he said the epithelioma was derived out of the ichthyosis. He (Mr. Hulke) had not ascertained it in his own case; for, after trying local treatment, he had cut out the patches, and he then lost sight of his patient, and on his return, after six years, the epithelioma had appeared in the centre of the tongue, near the tip, and he thought not in one of the cicatrices. In no subsequent case could he assure himself of the transition of the one into the other. He joined issue with Mr. Clarke as to the inflammatory nature of the affection. It lasted twenty years or more, and was restricted to the corium and subjacent tissue; it was quite soft and pliant, and there was no œdema or thickening, as in subacute inflammation, as in chronic eczema, &c. As far as his observations went, treatment was of absolutely no use. Mr. Clarke's observations and his own agreed as to the supervention of epithelioma. In every case he had watched, epithelioma had followed. Sir J. Paget said the same ten years ago when his case was discussed.

Dr. FAYRER said that cases like those described were often met with in India, more among natives than Europeans.

He had not considered all as due to syphilis; the worst were not. He referred to the case of a man aged seventy, who had ichthyosis of the body and tongue. He recovered under the use of arsenic. The affection was often called psoriasis; he thought when it was exaggerated ichthyosis was a good name, as resembling that of the skin. Many cases were perfectly hopeless; there was little or no improvement. When there was marked disease of the body, that of the tongue yielded to treatment. Local treatment was of no use. The general health should be attended to, and, if a syphilitic, iodide of potassium should be given.

Dr. DRYSDALE asked if Mr. Clarke would abolish the term "psoriasis of the tongue." In some cases he had seen there was a history of syphilis. He had seen little relief from treatment. He thought iodide of potassium in large doses should be tried, and chromic acid locally.

Dr. A. P. STEWART said Dr. Neligan's case first drew his attention to this subject, which was one of great importance. A man who wished to insure his life, on examination, had no other affection than this. The directors were advised not to accept him; his life was accepted, and he died of epithelioma following some irritation of the tongue within twelve months. Dr. Stewart then related four cases which had been under his care. In two death had followed from epithelioma; he had the other two cases still under observation.

Mr. SAVORY had had two cases under his observation—one a man aged seventy-three, in which the dorsum of the tongue was covered by a mass of the affection; the other, a man aged twenty-eight, where the disease was symmetrical, a patch being on each cheek. It differed from psoriasis of the tongue, which is not chronic and enduring, as this is; then psoriasis is amenable to treatment, and is moister. The paper was an exceedingly valuable one.

Mr. NAYLER considered ichthyosis as a congenital affection, and was nearly always seen in the first year of life, and it was to be regarded as a malformation of the skin. None of Mr. Clarke's cases bore out this statement. Every case had ended in cancer.

Dr. SPARKS said that, with regard to the microscopical appearances of ichthyosis of the tongue and of the skin, there was a considerable general resemblance, for in both there was epithelial proliferation, increased thickening of the rete Malpighii, and enlargement of the papillæ and their bloodvessels, with a greater or less formation of fine-celled growth in the papillæ. It was interesting to contrast the way in which ichthyosis linguæ appeared to select the districts supplied by the gustatory branch of the fifth with the ichthyotic patches on the skin following certain nerves in a few cases of true ichthyosis which had been recorded. He had seen such a case in which the patches followed the course of three intercostal nerves on the same side. With regard to the development of epithelioma out of ichthyosis, having made the sections for Mr. Clarke, he could state that in one of them the gradual transition from one to the other could be clearly seen upon the border of the true epithelioma, consisting in a thickening of the rete, with an increase of the nuclei in the cells of the lowest layers and a commencing formation of the so-called nests.

Mr. ARNOTT asked Mr. Hulke if he could distinguish between psoriasis and ichthyosis of the tongue. Mr. Savory said one was curable, the other not. He thought "ichthyosis" was a term applied solely to a congenital malformation of the skin, and it was a pity to apply it to a local disease of the tongue in adult life. He thought "psoriasis" a better term. Both were met with in, and without, syphilis. When without syphilis it was more inveterate; and so in the so-called ichthyosis of the tongue. The essential difference between ichthyosis and epithelioma was that in the first there was great proliferation of the epithelium covering the mucous membrane and enlargement of the papillæ, but as soon as the deeper tissues were affected it became epithelioma. He referred to the case of two brothers, one of whom had marked ichthyosis of the body and the peculiar characteristic conformation of the ear, and the other had epithelioma of the tongue following patches of ichthyosis.

Mr. HULKE, in reply, said that the distinction drawn by Mr. Savory was good. He thought the patches of ichthyosis were more stationary than those of psoriasis, which presented a variety of contour. He agreed with Mr. Arnott's remarks as to the change that occurs when ichthyosis passes into epithelioma.

Mr. FAIRLIE CLARKE said that both the names psoriasis and ichthyosis applied to the disease were open to objection. He was not inclined to adopt either, and thought it well to employ a new term, and would prefer to use "tylosis linguæ," a term first employed by Dr. Ullmann. He had been cautious in saying that it was an inflammatory affection; he had submitted his sections to a gentleman, a good microscopist, and he had thought it better to class the affection under chronic inflammation. Dr. Fayrer's case, showing the benefit from the use of arsenic, was exceedingly interesting. He had never seen anything like the patches on the cheek described by Mr. Savory.

ANNUAL MEETING.

The annual meeting of the Society was held on Monday, March 2nd, at 8 P.M. Dr. C. J. B. Williams, F.R.S., in the chair.

Dr. C. T. Williams and Dr. McIntyre were nominated scrutineers of the ballot for the new officers and Council.

The Treasurers' Report of the income and expenditure of the Society for the year 1873 was read.

The Report of the President and the Council was then read and unanimously adopted, on the motion of Mr. HENRY LEE, seconded by Dr. BEGLEY. The report stated that 27 fellows had died during the year 1873; this was a larger number than in any former year; for the last twenty years the average number of deaths yearly had been 15. Five honorary, 15 resident, and 9 non-resident had been elected in the year, so that the total number of fellows was now 654. The receipts during the year were a little below the average. The balance in hand was somewhat less than in previous years, but this was explained by the fact that some sources of income had ceased, and there had been some extra payments, as for insurance, which only occurred every seven years; then the expenses had been increased by the publication of a larger and more profusely illustrated volume of the Transactions, by the addition of a large number of foreign journals and books to the library, and by the increase of the salary of the sub-librarian. A committee had been appointed by the Council to consider the question of altering the present scale of composition fees, and it was decided that the change was not advisable. It was resolved that a *conversazione* should be given at the end of the session. The library would henceforth be open till 6 P.M. The number of books added during the year was 427; 218 English, and 209 foreign; the total number of books was 27,500.

Dr. SIEVEKING then proposed the following alteration in the bye-laws: "That for the future the Proceedings and the Transactions be incorporated in one volume; and that all papers be printed in chronological order in the Transactions, either in abstract or entire, together with the reports, the President's address, and other matters now printed in the Proceedings." It was hoped when the Proceedings were first proposed that through them more papers might receive a permanent record. At first they were popular, but the interest in them had gradually lessened, and now few papers were published; so the Council proposed that the publication of the Proceedings as a separate volume should cease.

Dr. BARCLAY seconded the proposition, which was opposed by Mr. Charles Hawkins, Mr. Durham, Mr. Curling, Dr. A. P. Stewart, Dr. McIntyre, Mr. Brooke, and Mr. Savory, who all thought that the value of the Transactions would be lessened if all papers were published together with other details.

Dr. SIBSON, as a member of the Council, defended the proposition, and did not consider the value of the Transactions would be deteriorated by publishing at the end an abstract of papers of less value.

On being put to the vote, the motion was lost by a large majority.

The PRESIDENT then gave the address. After remarking that nothing of special note had occurred during the year, and that a large number of good papers had been brought forward, the President gave obituary notices of those fellows who had died since the last annual meeting. They included the following names: Dr. S. W. J. Merriman, Dr. Ormerod (Brighton), Mr. R. Partridge, Dr. G. Hamilton Roe, Baron Justus von

Liebig (Foreign Honorary Fellow), Dr. Bence Jones, Dr. Tyler Smith, Mr. C. Robinson, Dr. C. C. Ritchie (Manchester), M. Auguste Nélaton (Foreign Honorary Fellow), Dr. J. Thurnam (Devizes), Mr. W. D. Michell, Mr. R. Cole, Mr. C. C. Smith, Dr. J. J. Ledsam (Scarborough), Sir Henry Holland, Bart., Dr. R. W. Smith (Dublin), Dr. J. Torrie (Aberdeen), Mr. T. Turner (Manchester), Dr. H. W. Fuller, Mr. H. T. Lomax (Stafford), Mr. T. Wormald, M. Louis Agassiz (Foreign Honorary Fellow), Mr. J. Grantham, Dr. G. Beaman, and Dr. P. Allen. The President remarked that at least five of the deaths had occurred prematurely from overwork. He urged the fellows to send in papers earlier in the session.

Mr. JOHN GAY proposed a vote of thanks to the President for his address, and that he be requested to allow it to be printed.

Dr. FAYRER seconded the motion, which was carried unanimously.

Mr. CURLING proposed, and Mr. MACCORMAC seconded a vote of thanks to the retiring officers and the Council.

The following officers and Council were declared to be elected for the ensuing year:—President: Dr. C. J. B. Williams. Vice-Presidents: Dr. Sieveking, Sir William W. Gull, Mr. William White Cooper, and Mr. Luther Holden. Treasurers: Dr. Wegg and Mr. John Birkett. Secretaries; Dr. Symes Thompson and Mr. Cooper Forster. Librarians: Dr. Sibson and Mr. Timothy Holmes. Other Members of the Council: Drs. Carlill, Dickinson, Hare, Priestley, and Hermann Weber, Messrs. William Adams, Thomas Bryant, Callender, Gay, and Streatfeild.

Reviews and Notices of Books.

A Dictionary of Medical Science: with the Accentuation and Etymology of the Terms, and the French and other Synonyms. By ROBLEY DUNGLISON, M.D., LL.D. A new Edition, enlarged and thoroughly revised, by RICHARD J. DUNGLISON, M.D. London: J. and A. Churchill. 1874.

LORD JEFFREY, on the leavetaking of a guest whose after-dinner conversation had exhausted the *omne scibile* in something less than a week, and whose airy confidence of tone foreclosed all difference of opinion, is reported to have said, "I don't like that man. *He has no misgivings.*" We are reminded of the anecdote on nearly every occasion when the votary of physical science tries to construct a fresh nomenclature, or above all, to write a dictionary of scientific terms. None would resent more sharply than he the intrusion of the philologist into his own domain; but, ignorant of the fact that philology is quite as exact a science as the majority of those he has to deal with, he coins words and hazards etymologies

"Enough to make Quintilian stare and gasp."

The chemists have sinned most deeply in this way, insomuch that that consummate scholar, Sir William Hamilton, thought it not too much to say that the "Lavoisierian nomenclature, whatever its merits in other respects, is a system of philological monstrosities, in which it is fortunate when the analogies of language are only violated, and not reversed." John Stuart Mill, also, in the fourth edition of his "Logic," comments not less severely on those who are continually spoiling the instrument of language for the few who can wield it aright; while the eminent philologist, Littré, as if in despair of ever seeing a medical dictionary compiled on scientific principles, associated himself with the well-known physicians, Charpentier and Robin, in re-editing the admirable lexicon that bears their three names. No such work exists in the English language; and if we turn from it to the unscholarly dictionary of Mayne, or the hardly less crude lexicon before us, we must confess that they do manage these things better in France—a confession humiliating indeed from the countrymen of Bentley.

It is a pity that Dr. Richard Dunglison, in preparing the new edition of his father's work, did not call in the aid of someone thoroughly acquainted with etymology. The original book was meritorious in nearly all directions but those of the derivation of words and their pronunciation; but so far from having this department improved, the new edition leaves it pretty much as it was, if not indeed appreciably worse. What shall we say of a lexicographer who thinks it worth while to quote the absurd derivation of "abdomen" from *abdo*, to conceal, and *omentum*, the caul; who derives "accusatio" from *ac* and *causa*; "alumen" from ἅλς, a salt; and "amaurosis" from *ἀμαυρὸς* and *ὄσις*—as if *osis* were a separate word! These specimens are found within forty pages of a work which contains 1131, and might be multiplied *præconis ad fastidium*. But we shall not pursue the unpleasant task of announcing them further than to say that while Dr. Dunglison has no misgivings in deriving "cicatrix" from *caco*, to conceal, he doubts the perfectly legitimate etymology of "cicindela" from *candela*; that "fremitus" does not mean "shuddering"; and that "lachryma," the spelling which he prefers, is precisely the one which all good Latinists are agreed in rejecting.

So much for the etymology. Come we now to the pronunciation; and here, as we expected, we find little but confusion. Sometimes quantity is utterly disregarded, in accordance with custom, as in "Æstival," "Cervical," "Vesico-vaginal," though why in this last case the penult of the first part of the compound should be shortened, and that of the second not, we cannot for the life of us see. On the other hand, quantity is made the rule against preponderant custom, as in the case of the word "Podăgra"; while in words like "Ecthyma" the reader is left to choose between lengthening or shortening the penult, according to his respect for etymology. Surely something like the principle on which the author wishes the words to be pronounced might have been laid down as a preliminary—a step which was the more necessary as his own language is the American, whose affinity to our own seems sometimes rather remote.

Dr. Dunglison, we think, owed it to his father's memory to "revise" this edition a little more "thoroughly" than he professes to have done. "Vena *minima* cordis," "κολυτρικοι," and so forth, are not creditable, even in a first attempt. Add to this that the French equivalents of the terms are given, to the exclusion of the German and Italian; the former of which certainly, the latter probably, have a better scientific title to be specified; and that the Greek is printed in an unsightly American type, with neither accents nor quantities marked, and we have said enough to warrant our verdict that a "Dictionary of Medical Terms"—scholarly, exhaustive, and trustworthy—has yet to appear in English.

OUR LIBRARY TABLE.

Slave-catching in the Indian Ocean. By Captain COLOMB, R.N. London: Longmans. 8vo, pp. 502.—This work, besides being a curiously interesting book on its particular subject, has a special interest for the epidemiologist. Since the westward extension of cholera in 1865-66, by way of the Indian Ocean, Arabia, and the Red Sea, to Europe, it has been a matter of considerable importance to know the ordinary movements of native traffic in the Indian Ocean, and between the East Coast of Africa and Arabia. Much of the difficulty of the International Sanitary Conference of 1866 in accounting for the beginning of the outbreak of cholera in Mecca in 1865 arose from want of this knowledge. The Conference would have avoided coming to the futile conclusion to which it did come on this subject had it been familiar with the routes of traffic in the Indian Ocean, and the large

native intercourse maintained between South Arabia and the Bombay Presidency on the one hand, and the East African Coast on the other. The clue to the outbreak of 1865 in Arabia, first seized by Mr. Netten Radcliffe, and subsequently followed out in one important direction by the Epidemiological Society through its inquiries in Zanzibar, which occasioned the invaluable papers on East African Epidemics of Cholera by Dr. Christie, the Physician to the Sultan, is found in the native trade in the Indian Ocean. Here also is the clue to the epidemic connexions of India and the East African Coast. It is a familiar experience of Bombay that small-pox may be carried there from the African coast; but as to the carriage of cholera from India to that coast Dr. Bryden, as we know, while insisting upon the relation of the phenomenon to the north-east monsoon, ignores the intermediate agency of native vessels. Now, upon the movements of native vessels in the Indian Ocean, especially between the East Coast of Africa and the South Coast of Arabia and the Persian Gulf, Captain Colomb gives an amount of information which may almost be termed exhaustive, and which in respect to the study of the movements of epidemic diseases on these coasts is of the greatest importance. We commend this book, therefore, to our readers, not only as a work full of interesting and instructive details upon its special subject, but also as abounding incidentally in information, not previously accessible, which will prove of great value in studying the movements of cholera and other epidemic diseases on the coasts of the Indian Ocean.

Man a Special Creation. By WILLIAM SHARPE, M.D., Surgeon Army Medical Department. London: Robert Hardwicke, Piccadilly.—This is one of the many works which the rebound of the theory of natural and sexual selection has evoked. The very magnitude of Mr. Darwin's conception carried in itself a protest against the assumption that the human mind was but the outcome of well-assorted instincts of the higher animals developed by the exigencies of outer circumstances. Dr. Sharpe, denying "that a single rudimentary structure of the body has been satisfactorily demonstrated," combats Mr. Darwin's objection to special creation of animals—viz., "that in so many cases habits and structures do not agree, and are therefore transitional," by contending that the apparent inconsistencies require but closer investigation to prove that what, as in the foot of the grebe and the coot, seems defective adaptation, is, on the contrary, a special provision. The author likewise believes that white will ultimately be the only surviving colour of the inhabitants of the world, and it is vaguely hinted that this will be brought about by the subtle working of a Universal Education Bill, since it is said that "it is not to be inferred that exposure in the nude state is of itself altogether sufficient to produce a black skin, or that a constant wearing of clothes is sufficient to produce a white one; there are other causes, moral and intellectual, that play an important part." Notwithstanding, however, that Dr. Sharpe becomes rather awkwardly involved in this part of his subject, there are evidences of diligent research and some controversial ability in the book.

The Bible and the Doctrine of Evolution: being a complete synthesis of their truth, and giving a scientific basis for the doctrine of Scripture. By WM. WOODS SMYTH. London: H. K. Lewis. 1874.—Another, and by no means the least able, of the many attempts to reconcile the facts and deductions of science with the statements of the Bible, or, more strictly speaking, perhaps, with the teachings of theology. We must confess to some lack of cordial sympathy with attempts of this sort in general. No doubt their authors are instigated by a benevolent desire to afford comfort to a class of persons who appear to imagine that one set of truths may be arrayed against another set, like hostile forces, and that the result of the conflict must be the victory of the one and the annihilation of the other. But more robust thinkers know well enough that all truths must harmonise, though their points of harmony may not be traceable directly and at once. Whatever is true in theology must necessarily perfectly accord with well-established scientific truth and with sound philosophy. The querulousness and impatience with which fresh discoveries are received in some quarters are symptoms of mental infirmity that is apt to be fostered by too frequent recognition and by over-treatment. But some treatment, of a sedative or calmative character, is, perhaps, beneficial, and from this point of view we recommend this book, which, though disfigured by many errors, grammatical and typographical, is, we think, well calculated to serve the purpose for which it was written.

Peculiarities of the Cuckoo; and Ingenuity of the Wasp. Two papers read before the Torquay Natural History Society, by Dr. PAGET BLAKE. (Published by request.) Torquay: J. Blackmore.—Two capital papers which we have read with much interest. Many of the facts connected with the habits of the cuckoo, by the way, would appear to us very difficult of explanation by the light of Darwin's or any other hypothesis. Doctors, especially country doctors, have always had a taste for natural history, and the results of much shrewd observation have been lost for want of having been published. Jenner—*the* Jenner of vaccination fame—was one of the first to throw some light on the history of this extraordinary bird, and we remember to have read his observations long ago with no little interest, although they have not, we believe, been substantiated in all respects. Dr. Ormerod, of Brighton, if we remember aright, was an admirer of wasps, and published a well-illustrated work on them. In Dr. Blake they have found a worthy champion, who makes out a good case for them.

The Monthly Microscopical Journal. March 1st, 1874, No. LXIII. Edited by Dr. HENRY LAWSON. Hardwicke.—The present number contains:—1. The President's Address, from which it appears that English work in microscopes and objectives was very badly represented at the Vienna Exhibition, M. Pillischer being, in fact, the only exhibitor. Hartnack's were the best, and were followed closely by Gundlach's and Nachet's. 2 Dallinger and Drysdale continue the account of their researches into the Life History of the Monads. They give details of a moist chamber they have found effective in researches of this nature, and state the effects of temperature in developing sporules, which they show to be capable of resisting much higher temperatures than adults. 3. Alfred Sanders contributes Notes on the Zoosperms of Crustacea and some other Invertebrata. 4. Mr. Wenham has another paper on the Angular Aperture of Object-glasses; and Dr. Woodward one on Immersion Apertures.

Science Primers: Geology. By ARCHIBALD GEIKIE, LL.D., F.R.S., Director of the Geological Survey of Scotland, and Murchison Professor of Geology and Mineralogy in the University of Edinburgh. London: Macmillan and Co. 1874.—Accurate in statement, perfectly simple and clear in style, and progressive in information, the scholar must be dull indeed in whom this little work fails to awaken an intelligent interest in the subject.

A Treatise on Medical Electricity, &c. By JULIUS ALTHAUS, M.D., M.R.C.P. Third Edition. London: Longmans. 1873.—We can hardly call to mind any work which has been so much improved as this by passing from a second to a third edition. The work has been thoroughly revised,

and its author has evidently laboured hard to keep his readers *en rapport* with all that is newest in the way of electro-therapeutics. To make room for much very valuable new matter the pruning scissors have been largely employed; and the new edition has, we think, been as much improved by the pruning process as it undoubtedly has by the grafting process. The work is one we can thoroughly recommend to all who are seeking information on this important branch of therapeutics.

Lectures on the Clinical Uses of Electricity. By J. RUSSELL REYNOLDS, M.D., F.R.S. Second Edition. London: J. & A. Churchill. 1873.—The second edition of these valuable lectures needs very little notice at our hands. They have been revised by their author, and certain additions have been made to them. The great value of this work consists in its thorough reliability. Dr. Reynolds does not advocate the employment of electricity with any undue enthusiasm; he avoids all debatable ground, and the reader has the satisfaction of feeling sure that whatever measures are recommended in this little volume are recommended by an authority in whom he can feel implicit confidence.

Chess Problems. By JAMES PIERCE, M.A., and TIMBULL PIERCE, Author of "Descriptive Geometry." London: Longmans, Green, and Co. 1873.—The collection of these Chess Problems, with a view to their publication in the volume before us, was a very good idea, and the authors deserve the thanks of those interested in this branch of chess. After all, mental relaxation consists more in varying our work than in omitting it altogether. The Lord Chief [illegible] of the profit and pleasure he obtained by [illegible]ins" by occasionally having recourse to [illegible] Gladstone turns to Homer as a relief [illegible]train of political life. Chess problems [illegible]ir own, and this volume contains [illegible]f them, some being very good in-

[illegible] *the Gold Coast, with Reminiscences* [illegible] *as well.* By HENRY MACCORMAC, [illegible]ans. 1874.—Why could not the [illegible] have told us what he has to say—[illegible], much—in a simple, matter-of-fact [illegible]ave "heaved the dictionary about" [illegible]one.

PRINCIPLES OF HOSPITAL CONSTRUCTION.

BY JOHN SUTHERLAND, M.D.,
Member of the Army Sanitary Commission, &c. &c.; and
CAPTAIN DOUGLAS GALTON, F.R.S.,
Director of Works (Office of Works), &c. &c.

IT is proposed in the present and subsequent papers to discuss the general principles of hospital construction under the following heads:—1. Economy of construction. 2. Hospital sites. 3. Subdivision of buildings. 4. The ward plan. 5. Ward details. 6. Arrangement of buildings.

No. I.—ECONOMY OF CONSTRUCTION.

The pages of THE LANCET have recently contained striking revelations of the extent to which hospital diseases add to hospital mortality, especially in surgical cases. The prevalence of these diseases has been traced to certain defective sanitary conditions surrounding the patients, some of which may at any time arise, even in the best hospitals, from absence of strict attention to cleanliness, ventilation, and general good management; while even in hospitals not of the best character, either as regards position or construction, it has been shown that, with care and proper management, hospital diseases may become comparatively of rare occurrence. It is important to keep this distinction in mind, while discussing questions of hospital construction, because no improvement in this element will altogether counterbalance the results of want of care; and, on the other hand, there is evidence that even with the utmost devotedness on the part of attendants and medical officers to their duty, the position or construction of a hospital, or both of these combined, may render care of little avail in preventing the invasion of hospital diseases.

Of late years hospital building has made considerable progress in this country, but it can scarcely be said that many of these buildings embody the true principles of hospital construction.

It is necessary, therefore, to begin our statement of these principles by introducing certain cautions drawn from observation of costly hospitals of recent erection, in which, with the best intentions and most liberal expenditure, the results arrived at have failed to embody the required principles.

Improved hospital construction in England may be said to date from the report of the commission on the sanitary state of the army in 1857. The general principles then enunciated had been known and discussed on the Continent, and some hospitals had been professedly constructed to embody them. But in almost every case the architect had failed somewhere in their application. Whilst the theory had been recognised in its perfection, in the practical application the architect had sinned grievously against sanitary principles.

Similarly, the hospitals which have been built in this country since 1857 exhibit, in the majority of instances, serious errors committed by the architect in the application of well-known sanitary laws.

In some notable instances the architect would appear rather to have desired to establish his reputation for æsthetic design than to rest it upon a close adherence to sound principles of construction.

A hospital has been defined as a building intended for the reception and treatment of sick and injured persons, under conditions more favourable for recovery than such persons could otherwise command.

In all ages the hospital has been the offspring of charity. The money devoted to charity has never yet been fully adequate to supply all the requirements to which it was devoted. It is, therefore, of the first importance that charitable funds should be applied in such a manner as to afford the maximum of relief obtainable out of the money. Consequently, in the construction of a hospital, no more money should be spent on the building than is absolutely necessary for securing those sanitary conditions which will enable the sick to be passed through the hospital in the shortest possible time.

The adoption of this principle precludes all needless expenditure on site or architectural adornment, and at the same time it renders necessary the limitation of the cubic contents to be provided in the building to just what is required for the reception, care, and treatment of the sick and injured.

The expenditure of half a million on a building which could have been placed upon a *good enough* site, and of a design *sufficient* for the purpose, for half or a third of the amount, is simply a reduction of the utility of the hospital to the extent of this unnecessary outlay. Every unnecessary passage, corridor, or staircase, or every passage, corridor, or staircase constructed of dimensions greater than required for communication, is a grave error, so far as the real utility of the building is concerned. They not only occupy cubic space, every foot of which costs money, but every unnecessary cubic foot within the building requires in-

native intercourse maintained between South Arabia and the Bombay Presidency on the one hand, and the East African Coast on the other. The clue to the outbreak of 1865 in Arabia, first seized by Mr. Netten Radcliffe, and subsequently followed out in one important direction by the Epidemiological Society through its inquiries in Zanzibar, which occasioned the invaluable papers on East African Epidemics of Cholera by Dr. Christie, the Physician to the Sultan, is found in the native trade in the Indian Ocean. Here also is the clue to the epidemic connexions of India and the East African Coast. It is a familiar experience of Bombay that small-pox may be carried there from the African coast; but as to the carriage of cholera from India to that coast Dr. Bryden, as we know, while insisting upon the relation of the phenomenon to the north-east monsoon, ignores the intermediate agency of native vessels. Now, upon the movements of native vessels in the Indian Ocean, especially between the East Coast of Africa and the South Coast of Arabia and the Persian Gulf, Captain Colomb gives an amount of information which may almost be termed exhaustive, and which in respect to the study of the movements of epidemic diseases on these coasts is of the greatest importance. We commend this book, therefore, to our readers, not only as a work full of interesting and instructive details upon its special subject, but also as abounding incidentally in information, not previously accessible, which will prove of great value in studying the movements of cholera and other epidemic diseases on the coasts of the Indian Ocean.

Man a Special Creation. By WILLIAM SHARPE, M.D., Surgeon Army Medical Department. London: Robert Hardwicke, Piccadilly.—This is one of the many works which the rebound of the theory of natural and sexual selection has evoked. The very magnitude of Mr. Darwin's conception carried in itself a protest against the assumption that the human mind was but the outcome of well-assorted instincts of the higher animals developed by the exigencies of outer circumstances. Dr. Sharpe, denying "that a single rudimentary structure of the body has been satisfactorily demonstrated," combats Mr. Darwin's objection to special creation of animals—viz., "that in so many cases habits and structures do not agree, and are therefore transitional," by contending that the apparent inconsistencies require but closer investigation to prove that what, as in the foot of the grebe and the coot, seems defective adaptation, is, on the contrary, a special provision. The author likewise believes that white will ultimately be the only surviving colour of the inhabitants of the world, and it is vaguely hinted that this will be brought about by the subtle working of a Universal Education Bill, since it is said that "it is not to be inferred that exposure in the nude state is of itself altogether sufficient to produce a black skin, or that a constant wearing of clothes is sufficient to produce a white one; there are other causes, moral and intellectual, that play an important part." Notwithstanding, however, that Dr. Sharpe becomes rather awkwardly involved in this part of his subject, there are evidences of diligent research and some controversial ability in the book.

The Bible and the Doctrine of Evolution: being a complete synthesis of their truth, and giving a scientific basis for the doctrine of Scripture. By WM. WOODS SMYTH. London: H. K. Lewis. 1874.—Another, and by no means the least able, of the many attempts to reconcile the facts and deductions of science with the statements of the Bible, or, more strictly speaking, perhaps, with the teachings of theology. We must confess to some lack of cordial sympathy with attempts of this sort in general. No doubt their authors are instigated by a benevolent desire to afford comfort to a class of persons who appear to imagine that one set of truths may be arrayed against another set, like hostile forces, and that the result of the conflict must be the victory of the one and the annihilation of the other. But more robust thinkers know well enough that all truths must harmonise, though their points of harmony may not be traceable directly and at once. Whatever is true in theology must necessarily perfectly accord with well-established scientific truth and with sound philosophy. The querulousness and impatience with which fresh discoveries are received in some quarters are symptoms of mental infirmity that is apt to be fostered by too frequent recognition and by over-treatment. But some treatment, of a sedative or calmative character, is, perhaps, beneficial, and from this point of view we recommend this book, which, though disfigured by many errors, grammatical and typographical, is, we think, well calculated to serve the purpose for which it was written.

Peculiarities of the Cuckoo; and Ingenuity of the Wasp. Two papers read before the Torquay Natural History Society, by Dr. PAGET BLAKE. (Published by request.) Torquay: J. Blackmore.—Two capital papers which we have read with much interest. Many of the facts connected with the habits of the cuckoo, by the way, would appear to us very difficult of explanation by the light of Darwin's or any other hypothesis. Doctors, especially country doctors, have always had a taste for natural history, and the results of much shrewd observation have been lost for want of having been published. Jenner—*the* Jenner of vaccination fame—was one of the first to throw some light on the history of this extraordinary bird, and we remember to have read his observations long ago with no little interest, although they have not, we believe, been substantiated in all respects. Dr. Ormerod, of Brighton, if we remember aright, was an admirer of wasps, and published a well-illustrated work on them. In Dr. Blake they have found a worthy champion, who makes out a good case for them.

The Monthly Microscopical Journal. March 1st, 1874, No. LXIII. Edited by Dr. HENRY LAWSON. Hardwicke.—The present number contains:—1. The President's Address, from which it appears that English work in microscopes and objectives was very badly represented at the Vienna Exhibition, M. Pillischer being, in fact, the only exhibitor. Hartnack's were the best, and were followed closely by Gundlach's and Nachet's. 2. Dallinger and Drysdale continue the account of their researches into the Life History of the Monads. They give details of a moist chamber they have found effective in researches of this nature, and state the effects of temperature in developing sporules, which they show to be capable of resisting much higher temperatures than adults. 3. Alfred Sanders contributes Notes on the Zoosperms of Crustacea and some other Invertebrata. 4. Mr. Wenham has another paper on the Angular Aperture of Object-glasses; and Dr. Woodward one on Immersion Apertures.

Science Primers: Geology. By ARCHIBALD GEIKIE, LL.D., F.R.S., Director of the Geological Survey of Scotland, and Murchison Professor of Geology and Mineralogy in the University of Edinburgh. London: Macmillan and Co. 1874.—Accurate in statement, perfectly simple and clear in style, and progressive in information, the scholar must be dull indeed in whom this little work fails to awaken an intelligent interest in the subject.

A Treatise on Medical Electricity, &c. By JULIUS ALTHAUS, M.D., M.R.C.P. Third Edition. London: Longmans. 1873.—We can hardly call to mind any work which has been so much improved as this by passing from a second to a third edition. The work has been thoroughly revised,

and its author has evidently laboured hard to keep his readers *en rapport* with all that is newest in the way of electro-therapeutics. To make room for much very valuable new matter the pruning scissors have been largely employed; and the new edition has, we think, been as much improved by the pruning process as it undoubtedly has by the grafting process. The work is one we can thoroughly recommend to all who are seeking information on this important branch of therapeutics.

Lectures on the Clinical Uses of Electricity. By J. RUSSELL REYNOLDS, M.D., F.R.S. Second Edition. London: J. & A. Churchill. 1873.—The second edition of these valuable lectures needs very little notice at our hands. They have been revised by their author, and certain additions have been made to them. The great value of this work consists in its thorough reliability. Dr. Reynolds does not advocate the employment of electricity with any undue enthusiasm; he avoids all debatable ground, and the reader has the satisfaction of feeling sure that whatever measures are recommended in this little volume are recommended by an authority in whom he can feel implicit confidence.

Chess Problems. By JAMES PIERCE, M.A., and TIMBULL PIERCE, Author of "Descriptive Geometry." London: Longmans, Green, and Co. 1873.—The collection of these Chess Problems, with a view to their publication in the volume before us, was a very good idea, and the authors deserve the thanks of those interested in this branch of chess. After all, mental relaxation consists more in varying our work than in omitting it altogether. The Lord Chief Justice spoke of the profit and pleasure he obtained by "clearing his brains" by occasionally having recourse to his Euclid, and Mr. Gladstone turns to Homer as a relief from the worries and strain of political life. Chess problems have a fascination of their own, and this volume contains an excellent collection of them, some being very good indeed.

How to Preserve Health on the Gold Coast, with Reminiscences of the Climate and Country as well. By HENRY MACCORMAC, M.D. London: Longmans. 1874.—Why could not the writer of this pamphlet have told us what he has to say—which after all is not much—in a simple, matter-of-fact style? He need not have "heaved the dictionary about" in the way he has done.

PRINCIPLES OF HOSPITAL CONSTRUCTION.

BY JOHN SUTHERLAND, M.D.,
Member of the Army Sanitary Commission, &c. &c.; and
CAPTAIN DOUGLAS GALTON, F.R.S.,
Director of Works (Office of Works), &c. &c.

IT is proposed in the present and subsequent papers to discuss the general principles of hospital construction under the following heads:—1. Economy of construction. 2. Hospital sites. 3. Subdivision of buildings. 4. The ward plan. 5. Ward details. 6. Arrangement of buildings.

No. I.—ECONOMY OF CONSTRUCTION.

The pages of THE LANCET have recently contained striking revelations of the extent to which hospital diseases add to hospital mortality, especially in surgical cases. The prevalence of these diseases has been traced to certain defective sanitary conditions surrounding the patients, some of which may at any time arise, even in the best hospitals, from absence of strict attention to cleanliness, ventilation, and general good management; while even in hospitals not of the best character, either as regards position or construction, it has been shown that, with care and proper management, hospital diseases may become comparatively of rare occurrence. It is important to keep this distinction in mind, while discussing questions of hospital construction, because no improvement in this element will altogether counterbalance the results of want of care; and, on the other hand, there is evidence that even with the utmost devotedness on the part of attendants and medical officers to their duty, the position or construction of a hospital, or both of these combined, may render care of little avail in preventing the invasion of hospital diseases.

Of late years hospital building has made considerable progress in this country, but it can scarcely be said that many of these buildings embody the true principles of hospital construction.

It is necessary, therefore, to begin our statement of these principles by introducing certain cautions drawn from observation of costly hospitals of recent erection, in which, with the best intentions and most liberal expenditure, the results arrived at have failed to embody the required principles.

Improved hospital construction in England may be said to date from the report of the commission on the sanitary state of the army in 1857. The general principles then enunciated had been known and discussed on the Continent, and some hospitals had been professedly constructed to embody them. But in almost every case the architect had failed somewhere in their application. Whilst the theory had been recognised in its perfection, in the practical application the architect had sinned grievously against sanitary principles.

Similarly, the hospitals which have been built in this country since 1857 exhibit, in the majority of instances, serious errors committed by the architect in the application of well-known sanitary laws.

In some notable instances the architect would appear rather to have desired to establish his reputation for æsthetic design than to rest it upon a close adherence to sound principles of construction.

A hospital has been defined as a building intended for the reception and treatment of sick and injured persons, under conditions more favourable for recovery than such persons could otherwise command.

In all ages the hospital has been the offspring of charity. The money devoted to charity has never yet been fully adequate to supply all the requirements to which it was devoted. It is, therefore, of the first importance that charitable funds should be applied in such a manner as to afford the maximum of relief obtainable out of the money. Consequently, in the construction of a hospital, no more money should be spent on the building than is absolutely necessary for securing those sanitary conditions which will enable the sick to be passed through the hospital in the shortest possible time.

The adoption of this principle precludes all needless expenditure on site or architectural adornment, and at the same time it renders necessary the limitation of the cubic contents to be provided in the building to just what is required for the reception, care, and treatment of the sick and injured.

The expenditure of half a million on a building which could have been placed upon a *good enough* site, and of a design *sufficient* for the purpose, for half or a third of the amount, is simply a reduction of the utility of the hospital to the extent of this unnecessary outlay. Every unnecessary passage, corridor, or staircase, or every passage, corridor, or staircase constructed of dimensions greater than required for communication, is a grave error, so far as the real utility of the building is concerned. They not only occupy cubic space, every foot of which costs money, but every unnecessary cubic foot within the building requires in-

creased care in the sanitary supervision, otherwise every foot will add its quota to the stagnant air, which is an important element in the formation of what is called a hospital atmosphere. Unnecessary superficial area within the building is besides a source of outlay in cleaning and general superintendence, both of which cost money. If a hospital staff working in a properly proportioned hospital is transferred to a building where the distances are doubled and the superficial area of passages, corridors, and staircases is doubled, it is quite clear that a large outlay must be incurred to keep up the administration, which must otherwise be weakened from being spread over so much larger an area of work.

The fewer rooms there are within a hospital the better. Every unnecessary room costs money to construct it and to keep it clean and well aired, and it is, to this extent, a useless drain on the resources of the building.

A hospital should contain nothing more than wards for sick, and rooms for attendants and ward requirements. The foundation of a hospital-plan is the ward, all else is merely subsidiary. And this subsidiary accommodation should be no larger in superficial area than is absolutely wanted. More than this is unnecessary expenditure, and adds an element of mischief to the building.

For obvious reasons the out-patients' department should have no connexion with the hospital so-called. The same remark applies to kitchens, stores, boiler-rooms, cellars, dust-bins, and the like, also to physicians' and surgeons' rooms, and dispensary. It is quite possible in practice to keep the buildings required for patients and their attendants just as much by themselves as if they were miles away from the subsidiary accommodation, and yet to place the whole of this latter in perfectly convenient localities.

It is a grave error, and no saving of cost, to place them altogether within the hospital. The whole structure is complicated by this arrangement, and the sanitary condition of the building is endangered. Small country hospitals may to some extent form an exception to this rule, but even in them there should be no communicating atmosphere between the wards and the subsidiary accommodation.

These are axioms of hospital construction. Let us now glance at recent instances of their application.

The Leeds Infirmary for 350 beds, and St. Thomas's Hospital for 600 beds, constructed by leading architects professedly upon the most approved principles, furnish instances of departure from the very important provision in hospital construction that the air within the building must never undergo risk of stagnation.

The Leeds hospital contains five pavilions for sick, of which three are on one side, and two on the other, of a narrow central court. They each contain two floors of wards. The administrative accommodation, including a dispensary for out-door patients, is placed in the basement above which the sick wards rise. No expense has been spared in the construction of this hospital. The corridors connecting the pavilions have a terrace roof raised above the level of the floor of the upper wards, and a glass roof which rises almost as high as the roofs of the upper wards has been placed over the central court. This tends to prevent the free circulation of air in the central court and adjacent corridors, and the height of this roof and of the terrace above the corridor may somewhat stagnate the air in the courts between the northern pavilions. The atmosphere of the basement cannot fail to pass up the staircases, and basement air is always impure air. The central court is converted into a conservatory, which, though elegant to the eye, can but be a reservoir of stagnant air, and stagnant air means bad air.

In St. Thomas's Hospital there are four floors of wards, all communicating with each other and with the basements by corridors and staircases. The low out-patients' department occupies a large portion of one side of the corridors, and prevents the circulation of air therein, and is a sure means of causing impure air to permeate the corridors and staircases, and to enter the wards. The waterclosets of this department have been placed in a situation which has compelled the windows of certain parts of the corridor to be kept closed. Lifts pass from the basement to the upper floor, with openings at each landing conveniently near the wards; the chimneys of each ward are carried up in iron tubes through the wards above, and these tubes also contain ventilating outlet shafts.

In these two examples the pavilion structure has been adopted, but it cannot be said that the objects contemplated by this form of ward arrangement have been more than partially realised.

THE CONJOINT SCHEME.

Fourth Report of the Committee of Reference for an Examining Board in England to the Co-operating Medical Authorities.

THE Committee of Reference, having been requested to undertake the duty of drawing out the regulations relating to both the preliminary and the professional education of candidates for examination by the Conjoint Board, and having in their third report submitted regulations relating to professional education, beg leave to submit to the co-operating medical authorities a fourth report on the preliminary education of candidates desirous of commencing the study of medicine.

The Committee of Reference do not consider it desirable to recommend any change in, or addition to, the existing regulations relating to preliminary education and examination, beyond advising that, in addition to the examinations already recognised by the General Medical Council, the junior local examinations conducted by the English universities should be recognised for the preliminary examination of medical students, provided that Latin and Mathematics are among the subjects included in the pass-certificate.

The Committee of Reference think it probable that, with this addition, the local and other examinations instituted by the English universities, and by other bodies whose examinations are recognised by the General Medical Council, will gradually diminish the number of candidates for whom it is necessary that the co-operating medical authorities should institute a separate examination.

In order, however, to meet the present necessity for such an examination, the Committee of Reference recommend that a Board of Examiners on the subjects of general education be appointed annually by the Committee of Reference so long as it may be found necessary, and that any candidate who cannot produce evidence of having passed an examination on the subjects of general education recognised by the General Medical Council be required to pass the examination conducted by this board; that the Board of Examiners to be appointed in accordance with the preceding recommendation be, for the present, the board now approved by the Royal College of Surgeons of England; and that the examination be under the supervision of the Committee of Reference; that the fee for admission to this examination be two guineas, and, in the case of a candidate being referred, that the fee be returned less one guinea for expenses of the examination.

JAMES PAGET, *Chairman.*

HENRY W. ACLAND.	HENRY A. PITMAN.
GEORGE ROLLESTON.	J. R. BENNETT.
G. E. PAGET.	CHARLES WEST.
G. M. HUMPHRY.	A. W. BARCLAY.
G. H. PHILIPSON.	WILLIAM FERGUSSON.
GEORGE Y. HEATH.	GEORGE BUSK.
RICHARD QUAIN.	JOHN E. ERICHSEN.
J. COOPER FORSTER.	

March 2nd, 1874.

THE LANCET.

LONDON: SATURDAY, MARCH 14, 1874.

IT will be well at the present moment briefly to review some of the facts connected with sanitary administration under the Public Health Act of 1872. The appointment of Mr. SCLATER-BOOTH to the presidency of the Local Government Board, and of Mr. CLARE SEWELL READ to the parliamentary secretaryship of the Board, gives a reasonable hope of important modifications, at least, in the policy of sanitary administration initiated by Mr. STANSFELD; and it is very desirable that the profession should have a clear understanding of the modifications for which they may justly look. Both gentlemen, it may be fairly assumed, accept the important offices entrusted to them without any of those unfortunate prepossessions which were perhaps almost a necessity of the circumstances under which Mr. STANSFELD accepted office; and both gentlemen come to their posts with characters for thorough business habits, and, above all, for frankness of dealing, which will conduce more than aught else to a better understanding between the Local Government Board and the profession. Nothing contributed more to the distrust of the profession in Mr. STANSFELD than the difficulty of reconciling his utterances at various times with the facts of his administration. When, in November, 1872, for example, in speaking to a deputation of medical men, Mr. STANSFELD stated his view of the "great future work" of the Public Health Act of 1872 to be a "minute inspection of premises," and at the time, as was subsequently known, he was ratifying local arrangements which made a minute inspection impossible; when also to the same deputation he described the new assistant-inspectors as not appointed for sanitary purposes, and it was afterwards discovered that these very inspectors were engaged, conjointly with the Poor-law inspectors, in giving advice to local authorities on the most complicated questions of sanitary organisation, a feeling of distrust was begotten in the profession at large, which was unhappily augmented rather than decreased by Mr. STANSFELD'S subsequent action. If the state of mind betokened by such utterances as these in any degree influenced Mr. STANSFELD'S departmental relations, we can well conceive that deeper causes than divergences of opinion may have underlain the difficulties of harmonising the several sub-departments of public health, local government, and Poor Law, of which the staff of the new Board was formed.

Dr. RUMSEY, in the letter with which he recently favoured us, mixes together and confounds two very different questions. The work of the Royal Sanitary Commission is one thing; the work of Mr. STANSFELD as President of the Local Government Board is another. It is not necessary, neither do we think it desirable, in reviewing Mr. STANSFELD'S sanitary administration, to review also the work of the Royal Sanitary Commission. The two questions are best kept apart. If Dr. RUMSEY thinks that the time has already come when the conclusions of the Royal Sanitary Commission may be questioned with some chance of success, and that the new Government may be induced to turn a favourable ear to sanitary reformers, we are not disposed to quarrel with the opinion. Nevertheless, the adoption of this course in no degree militates against the immediate practical issue which should occupy the attention of the profession. The Local Government Act of 1871 and the Public Health Act of 1872 were both outcomes of the Royal Sanitary Commission. Mr. SCLATER-BOOTH, as Mr. STANSFELD, will no doubt hold himself bound to follow out broadly the line of policy in the administration of the Act of 1872 laid down by the Commission. That policy was one which was capable of effecting great and essential improvements in local health administration if it had been carried out in the spirit indicated by the Commission, however short these improvements may have fallen of the desires of advanced sanitary reformers like Dr. RUMSEY. Mr. STANSFELD failed altogether in comprehending the spirit in which the recommendations of the Commission had been made. He interpreted them, from his first assuming office as President of the Local Government Board to the time of his vacating it, as if he were still President of the Poor-law Board, and as if the former Poor-law staff were alone concerned in the administration of the new functions. He stumbled and fell prone over the initial difficulty which the Royal Sanitary Commission had foreseen, but had thought that a few simple cautionary expressions of opinion would be sufficient to guard a minister against—namely, the subordination of care of health to the relief of destitution; and in his fall Mr. STANSFELD made the almost inextricable mess of sanitary administration which will constitute one of the most formidable difficulties of his successor.

Nothing is more surprising in looking over the report of, and evidence before, the Royal Sanitary Commission than the elimination of all consideration, both by the members of the Commission and the witnesses, of human nature, particularly official human nature. Throughout the report the official agents with which the suggestions are to be worked out are dealt with as if they would come to their new relations of work with minds untouched by previous associations and training. This was particularly conspicuous in perhaps the most ill-considered of the Commission's recommendations—that in which it recommended one set of inspectors for Public Health and Poor-law purposes. Aiming here at an economy of central expenditure, it lost sight of that efficiency of guidance in public-health matters which it would be the duty of the inspectors to afford to local sanitary authorities. The recommendation, as must now be sufficiently apparent to all persons who have practical knowledge of the subject, has saved the Imperial exchequer a few thousands at the cost of local sanitary inefficiency which will inflict an incalculable toll in health and money in the majority of sanitary districts. But greatly as this recommendation wanted in foresight, the Commission had guarded it in a way that would have diminished its mischievousness to the least amount, and would have permitted its being worked with signal benefit to the community. The Commission, in giving the recommendation, presumed that it would have been carried out subject to the

skilled advice which it also recommended; and especially it contemplated in this aspect the advice of Mr. SIMON, who, it was proposed, should have "the concentrated superintendence of all sanitary arrangements." But Mr. STANSFELD, in adopting this recommendation of the Commission, and appointing the Poor-law inspectors the inspectors of the new Board for all purposes of communication with local authorities, absolutely entrusted to these inspectors, and to the inspectors newly appointed to assist them—both without any previous experience and knowledge of public-health matters, and without any common instructions,—the duty of advising sanitary authorities, old and new. In short, in place of carrying out the Royal Sanitary Commission's intention of placing the sanitary authorities new and old upon the vantage ground of starting on their work with a competent knowledge of what had already been gained by previous experience, it dragged the starting-point down to the lowest level of *dilettante* knowledge and inexperience.

Mr. STANSFELD'S errors were his own, not those of the Royal Sanitary Commission; and Dr. RUMSEY should keep the two questions entirely apart. Pending those wider and more radical changes which Dr. RUMSEY strives after with unabated zeal, it is important that the immediate interests of the moment should not be lost sight of. It can scarcely fail to be an important element in Mr. SCLATER-BOOTH'S judgment to what extent he should adopt or modify the policy of his predecessor in sanitary administration, that he should have a clear conception of the manner in which Mr. STANSFELD failed, in the opinion of the profession, in his public-health functions. Confining ourselves for the moment to judging Mr. STANSFELD'S public-health administration by the light of the Royal Sanitary Commission's report, we aver that while, after a certain pettifogging fashion, he followed the line of the Commission's recommendations, he missed their scope, and rendered them futile for the good that was in them.

THE taking of Coomassie has, in reality, proved a more brilliant feat of arms than most people imagined it could have been; and the burning of that city forms a dramatic *dénouement* to the Ashantee campaign. Nothing can efface the horrors of warfare; and the burning of an enemy's capital, under ordinary circumstances, is a kind of vengeance which is most antagonistic to our sense of humanity. But in the case of Coomassie it seems to have been absolutely necessary that our power should have been manifested in the lurid characters which have attended the destruction of that place. The city itself is an abomination; it is a charnel-house, in no part of which is the odour of recent human slaughter unperceived. The whole scheme of Ashantee politics, as Sir GARNET says, is so based upon treachery that the King does not understand any other form of negotiation or believe it possible that others can have honest intentions. It was impossible to guarantee against further treachery. Time was pressing, and the heavy rains had commenced swelling every little driblet in rear of the General's army into a torrent, threatening to deluge the country and render the return of the troops impossible. Delay under such circumstances meant disease and death, and nothing was therefore left to the General in command but to effect the destruction of Coomassie, which will probably create an infinitely greater impression on the Ashantees and neighbouring tribes than the signing of any treaty would have produced. So great has been the moral effect produced, that the King of Ashantee has sent his first instalment of gold dust, and is suing for peace upon almost any terms; whilst a small party of men can now traverse his country without molestation. Rumours of our military power will spread and become a tradition. A blow has been struck at the prestige of a cruel and tyrannical power that dominated and cowed all its neighbours by the destruction of villages and the murder of men, women, and children in hideous human sacrifices.

Sir GARNET WOLSELEY has fully justified the confidence of those who selected him for the execution of this very difficult undertaking. He is every inch a soldier; practical; full of resources; rapid in taking a survey of his position; swift in forming correct conclusions and in carrying his designs into operation; and the foresight and cautious sagacity he has displayed prove that he possesses the combination of qualities that make a good general as well as a dashing one. The difficulties of this campaign were, in reality, very great: the climate notoriously so inimical to health as to be regarded as deadly to Europeans; the nature of the country difficult and relatively unknown; the distance to be traversed from the base of operations to the enemy's capital great, and no animal transport available; the European force employed very small, and the time for the execution of the undertaking extremely limited. To these difficulties there are to be added others on which no one could have calculated—such as the entire absence of all co-operation of the native allies, their wholesale desertion, the break-down of the transport, with the possible starvation of the troops operating in the field, the treachery of the King, and the conduct of a system of bush warfare under circumstances altogether new and always very trying to regular troops. If we had not felt such confidence in the General's judgment, we might have had a shade of misgiving about the telegram dated the 9th February from Detchiasse, on the north side of the Adansi hills, in which, with a courage and disregard of self which one cannot but admire, the General states that he halts with *native troops only* four or five days to allow time for negotiations.

So ends the Ashantee campaign. That a certain amount of sickness, such as dysentery and fever, must be expected under the circumstances of the return march, is certain; but, considering all things, the correctness of the opinions expressed by the Military Medical Service before the commencement of the expedition has been remarkably verified by the results. The mortality has been relatively insignificant, the sickness even less than the doctors predicted, and the threatened outbreak of yellow fever has been averted by the decisive action of the local authorities. It has been a doctors' and an engineers' war. As regards the latter, the energy, skill, and ability of Major HOME, in command of the Royal Engineers, have been unquestionable. And, as for the doctors, we must leave Sir GARNET'S despatch to speak for itself. It is most gratifying to learn that the medical officers of the army and naval services have vied with one another in the zeal and

energy they have displayed. Whether on shore or on shipboard, their labours and responsibilities have been unusually great. General WOLSELEY says:—

"The medical arrangements for the war were made by Deputy Surgeon-General Home, V.C., C.B. I have in a previous despatch recorded my high appreciation of the ability and energy with which he carried out his duty up to the date of his being invalided, and of the efficient manner in which he prepared for the medical requirements of the troops in the advance upon Coomassie. The organisation planned by him was well carried out by Surgeon-Major Mackinnon, C.B., who joined me on the march to Acrofoomu, and who has since continued to perform the duties of principal medical officer to my entire satisfaction. Of the medical officers employed, I wish specially to bring to your notice the services of Surgeons-Major Woolfreys, Mosse, Waters, Jackson, and Turton; and Staff-Surgeon Irwin, R.N.; also of Surgeon G. W. M'Nalty, who has had charge of the head-quarter staff since we left Cape Coast Castle on our march to Coomassie."

THE Council of the Hospital Sunday Fund may be congratulated on the wise decision to which it came on Tuesday in regard to the Report of Canon MILLER'S Committee on the Relative Claims of Hospitals and Dispensaries. The two main points of this report were—first, an assertion of the value and usefulness of dispensaries; and, secondly, the recommendation of the Committee that the awards to dispensaries be made on the same principle as those to hospitals. If the dispensaries felt rather slighted by the action of the Distribution Committee last year, they may feel not a little compensated by the warm expression of opinion in their favour on Tuesday at the Mansion House. In truth, the distribution of last year was somewhat capricious and open to criticism. According to the report of Canon MILLER'S Committee, while hospitals received at the rate of 15 per cent. on their average expenditure *minus* proprietary revenue, dispensaries received at the rate of only 6 per cent. While some hospitals, as the London Hospital, received a percentage award on their expenditure of 19¼ per cent., the Charing-cross Hospital received at the liberal rate of 38 per cent. These facts do not admit of any very satisfactory explanation. Naturally the friends of dispensaries were much dissatisfied. Before the establishment of Hospital Sunday these institutions were considerably favoured in the matter of church collections, and there was a general feeling on the part of clergymen of all denominations that they could not have both a collection for dispensaries and for the Hospital Sunday Fund. The dispensaries were in danger of falling between two stools. The discussion of Tuesday, however, made ample amends to the dispensaries. The speakers set forth in a very clear way the work done by dispensaries, especially in visiting the sick poor at their *homes*. Dr. GLOVER showed that in the hospitals, excluding the three large endowed hospitals, not receiving help out of this fund, only thirty-five thousand in-patients were admitted in the course of the year—a number which must be altogether incommensurate with the needs of the sick poor of three or four millions of people, many of whom were most creditably keeping themselves out of pauperism. Mrs. GARRETT-ANDERSON spoke of the value of dispensaries from her own experience in the east of London. Archbishop MANNING forcibly said that the movement was not one for the benefit of hospitals or of dispensaries, but of the sick poor of London. Sir CHAS. TREVELYAN, though delighted with the recommendation of the provident principle in the Committee's report, complained that while the system of medical charity remained the people would not act on provident principles. But the meeting was evidently in favour of the view expressed by Archbishop MANNING, that until men were provident their misery must be met in a charitable way, especially in the matter of sickness. The discussion ended in the following proposal from the chair by Sir SYDNEY WATERLOW, which was carried unanimously:—

"That it be an instruction to the Committee of Distribution to place dispensaries on the same footing as hospitals, taking the legitimate expenditure of these institutions and the ordinary charitable income as the basis of distribution in both cases."

While there is nothing in this resolution to prevent the Distribution Committee taking into consideration the special circumstances of hospitals and dispensaries qualifying their claim on the fund, it makes a clean end of the untenable distinction, from a charitable point of view, between hospitals and dispensaries. The movement should now have the hearty concurrence of all churches.

One other matter of importance was discussed on Tuesday—viz., the desire in some quarters to have a separate Saturday movement. Very wisely, a deputation was appointed to wait on the promoters, and urge them to co-operate with the existing Council. It is not satisfactory that this movement should hail from an institution with very slight claims on the support of the public. But, whatever its merits, they will be regarded fairly by the existing Council, which has the strongest claims on the respect of the working classes, inasmuch as it represents all the leading hospitals and dispensaries of London. It was resolved to seek a conference with the promoters to urge upon them the impolicy and the unseemliness of acting separately in this matter, especially seeing that the Saturday collection by working men was initiated last year by the Council of the Hospital Sunday movement.

The Council resolved to add to the Committee of Distribution two medical men unconnected with the hospitals or dispensaries benefited by the fund. They selected Dr. J. RISDON BENNETT and Mr. ARTHUR DURHAM.

NOTWITHSTANDING the large amount of physiological research that has been expended on the pneumogastric nerves, and the accuracy with which the functions of the principal branches distributed to the pharynx, larynx, lungs, heart, and stomach are known, comparatively little attention has been paid to the pathological conditions established in the living subject when these nerves are diseased or injured; and, with the exception of those cases where the inferior or recurrent laryngeal is affected, but few references can be found in books to indicate the phenomena exhibited. M. PAUL GUTTMANN, of Berlin, has endeavoured to supply this want to some extent in a paper he has lately forwarded to the *Archives of Pathological Anatomy and Physiology*. He points out how not unfrequently dyspnœa and greatly increased rapidity of the pulse are observed to

occur in convalescence from diphtheria in children—symptoms that it is highly probable are due to paralysis of the pneumogastrics, and lead almost certainly to a fatal result. MOSLER, who has seen two cases of this kind, and HENOCH a third, describe the patients as making a satisfactory recovery after diphtheria or fever when the pulse suddenly rose to 140 or more in the minute; collapse quickly followed, in one of the cases, with vomiting, and after death the heart was found to have undergone fatty degeneration.

The difficulties that stand in the way of accurate observation of the effects of paralysis of the pneumogastrics dependent on centric lesion are very great, in consequence of the complications that are almost sure to occur from the disease affecting adjoining parts of the medulla oblongata. And, even where the lesion is peripheric, the symptoms have been by no means uniform; thus, in some cases, there have been great increase and frequent recurrence of the feelings of hunger and thirst, while in others there has been entire loss of these sensations. In some there has been retardation, in others acceleration, of the cardiac beats; in some, slowness and interruption of the breathing; in others, increased rapidity. To a certain extent these variations are in accordance with physiological teaching, since the pneumogastrics are known to contain both excitor and inhibitory fibres acting upon both the heart and the respiration; but the reason why one set of fibres should be affected and not the other is often very obscure. In operations about the neck, serious injury has occasionally been inflicted on the pneumogastric nerves. Thus so experienced a surgeon as ROUX, in removing a carcinomatous tumour from the neck, on tying the left carotid, observed the respiration had stopped and the pulse had become much slower. Instantly divining that he had included the pneumogastric nerve in his ligature, he divided the thread; but the lesion proved too severe, for the patient died in the course of half an hour; though, doubtless, loss of blood, and other circumstances connected with the operation, hastened the fatal issue. One vagus appears to be capable of maintaining the respiratory function with sufficient activity for the preservation of life, since a case of gunshot wound was observed by STROMEYER where the nerve of the left side was divided, and yet death did not take place till the end of the third week. The only symptom remarked was the absence of respiratory murmur on the side affected, which was probably due to a hypostatic pneumonia—a condition well known, from REID'S experiments, to occur in animals after section of the pneumogastrics.

H. N. MARTIN, B.A. Cantab., D.Sc. Lond., has been appointed Lecturer on Physiology at Christ's College, Cambridge. Dr. Martin was a distinguished student of University College, who competed for and obtained a scholarship for Natural Science at Christ's College. He graduated in the Natural Sciences Tripos last year, being first in the first class, and acts as assistant to Dr. Michael Foster in the Physiological Laboratory of the University. Dr. Martin is the author of a paper on the "Structure of the Olfactory Mucous Membrane," which appeared in the last number of the *Cambridge and Edinburgh Journal of Anatomy and Physiology*, and which was reprinted in the *Studies from the Physiological Laboratory of the University of Cambridge*, edited by Dr. M. Foster.

Medical Annotations.

"Ne quid nimis."

EXHUMATION AND CORONER'S LAW.

WE published on the 21st ult. a remarkable account of the exhumation of a young man, aged twenty-nine, who, almost up to the time of his death, had been attended by Mr. J. B. Shepherd, of New Cavendish-street, for acute rheumatism. He had suffered on two previous occasions from the same disease with pericarditis. He had been left by Mr. Shepherd, on the evening of the 21st of January, convalescent. Very foolishly, on the evening of the 22nd—a foggy and cold night—he went out without a top coat, and had not returned at 11 o'clock when the landlord went to bed. About 2 P.M. the next day, as Mr. Shepherd was out, Mr. E. H. Thomas was called in to see the young man, and found him dead. The father was communicated with, and agreed to any course that might be recommended by the medical men, including Mr. Shepherd and Mr. Robert W. Jenkins, of Charlotte-street, Bedford-square, who was the family attendant, and had attended the deceased in one of his rheumatic illnesses. As Mr. Shepherd had attended him so lately, they naturally thought that a post-mortem examination and a rough testing of the contents of the stomach would meet the necessities of the case, and justify them in filling up a certificate. Accordingly they took this course; and finding extensive disease of the heart and pericardium, and no poison or indication thereof, they gave a certificate, and the youth was buried on the 27th of January. On the 26th and 27th Dr. Lankester received two letters—one anonymous, and the other signed by two companions of the deceased,—requesting further investigation. And on the strength of these letters, without any communication with the medical men, or with the father of the deceased—a letter from whom will be found elsewhere in our impression of to-day,—he ordered the exhumation of the body and its further examination by Professor Rodgers. According to the father's statement, his private grave was opened, and his son's body removed, and several days allowed to elapse before he received any intimation of the facts. And then the first intimation he received was an indirect one from the landlord of his late son. The treatment which the medical men in this case received was not more fortunate or considerate than that of the father. They, too, received only indirect intimation of the intended exhumation, and on doing so wrote a statement to Dr. Lankester. They not only received no reply to this, but at the inquest Dr. Lankester spoke of them as abetting the friends in trying to evade an inquest, and "as culpable as the friends, and as likely to have an interested motive for shunning inquiry." Professor Rodgers, in his examination of the body, found no trace of poison. The coroner having read the anonymous and other letters he had received, proceeded to read Mr. Shepherd's, which he said he thought quite sufficient evidence to justify a verdict of death from rheumatism, and disease of the heart.

We exceedingly regret that Dr. Lankester up to this time has not given us any other version of the facts complained of very naturally by both the father and the medical men. Perhaps the medical men should have intimated the facts to him before making the post-mortem. But there is an utter want of proof that in not doing so they meant to evade inquiry, or be disrespectful to the coroner. At any rate, the least that as medical men they were entitled to expect from a medical coroner was a reply to their reasonable and pertinent statement, on which finally the verdict was based, and a kindly construction of their motives in the

course they took. Dr. Lankester explains the monstrous fact of a man's son being disinterred without any intimation to the father by the discourtesy of his subordinates. We wish he could so easily explain his treatment of the medical men, and his not calling them as witnesses, while he used as the only satisfactory evidence the statements of their letter to which he had not deigned a reply.

THE NEW DIRECTOR-GENERAL OF THE ARMY MEDICAL SERVICE.

SEVERAL perfectly unauthorised and untrustworthy statements have appeared in regard to the successor to Sir Galbraith Logan. We have no hesitation in saying that if fitness for the post, as well as popularity with the department, constitute any claims to it, the direction of the medical service will fall to the lot of the present head of the Sanitary Branch of the War Office, Sir William Muir. Not to mention this officer's services in the Crimea, in China, in the *Trent* affair, and subsequently as the principal medical officer of the British forces in India, it is well known that an unusual amount of work and responsibility fell to his share in connexion with the present war, and the success that has attended the medical and sanitary arrangements sufficiently attests their character. We utterly discredit the statements put forward as to there being any intention of diminishing the salary of what is already one of the very worst paid posts in the public service. If such were the case, we can understand that Sir William Muir might feel disposed, on public grounds, to refuse an appointment entailing the responsibility and labour of administering the medical affairs of a service whose members are to be found in every climate of the world; while we could scarcely understand how anyone would be inclined to accept the post on his refusal of it under such circumstances. But, as we have said, it is ridiculous to suppose anything of the kind. The successor to the appointment of Director-General has, no doubt, been virtually decided ere this. Whether it has or has not, we believe that the officer we have named possesses claims which should, if they do not, cause him to distance any competitor, and we feel confident that such is the opinion of nine-tenths of the officers of the service of which he is now, as he has long been, one of its most distinguished members.

HOSPITALS AND PRIVATE PRACTICE.

WE have received from Mr. Charles J. Elwin, of the City-road, copies of a correspondence he has had with the authorities of St. Bartholomew's Hospital, which requires some public notice. On February 12th an old patient of Mr. Elwin's fell down in the street, and was taken into St. Bartholomew's, where he was told that his leg was broken; but he declined to be admitted to the hospital, and, going home, sent early the next morning for Mr. Elwin. This gentleman saw his patient twice that day; but, on visiting him the next morning, found that, the night before, a friend, who was with the patient at the time of the accident, had brought the house-surgeon from St. Bartholomew's, who, without consulting Mr. Elwin, had taken upon himself to remove that gentleman's applications, and to set the limb. Mr. Elwin, being not unnaturally annoyed at this interference, wrote to the Warden of St. Bartholomew's, requesting to know the name of the house-surgeon, and to be informed whether house-surgeons were allowed to follow patients home and interfere with private practitioners. The Warden replied that there was no ground of complaint against the hospital; and that as the house-surgeon was sent for by the patient's friend, it "reduced the matter to a question between the patient and two medical practitioners." In answer to a second demand for the house-surgeon's name, the Warden referred Mr. Elwin to the governors of the hospital. To them, accordingly, Mr. Elwin wrote on the 19th of February; and on the 26th he received an answer from the Clerk, curtly informing him that Mr. E. Jepson was the house-surgeon who attended to the patient referred to in his letter. To Mr. E. Jepson Mr. Elwin next wrote, on February 27th, a very temperate letter, asking him to explain the circumstances under which, while acting as house-surgeon, he attended Mr. M—— at his own house, and, without communicating with the medical man in attendance, thought proper to interfere with his applications, and to set the leg. To this letter Mr. Elwin had received no reply on March 7th.

We think Mr. Elwin is fully entitled to demand an explanation both from the house-surgeon and from the authorities of St. Bartholomew's. It has always been the understanding, if not the rule, that the officers of a hospital are not to visit patients at their own homes, save under exceptional circumstances; and nothing can justify the interference of the house-surgeon with a patient already under the care of another medical man. We do not agree with the Warden of St. Bartholomew's that the matter is reduced to a question between the patient and two medical practitioners, for it was as an officer of the hospital that the house-surgeon in question came first in contact with the patient. Mr. Elwin appears to have been treated by all the parties concerned with scant courtesy.

THE INVALIDS FROM THE ASHANTEE CAMPAIGN.

NOTHING can be more satisfactory than the latest telegrams. The sick and wounded of the Ashantee war, now happily concluded, are doing well, and the last detachments were to have embarked on the 22nd of February. From intelligence which we have received from Cape Coast Castle, we learn that the *Victor Emanuel* was expected to have left with the sick and wounded on the 25th ult. for England, calling at Gibraltar for the purpose of depositing at that station such cases of sickness as were unfit to encounter the cold and inclement weather of this country at this season. It is hoped, however, that the number of cases requiring to be temporarily accommodated at Gibraltar will be small, from the difficulties connected with quarantine regulations, which are said to have proved sources of much embarrassment.

Immediately on the receipt of the intelligence at Cape Coast Castle of the fighting at Amoaful and subsequent capture of Coomassie, we learn that arrangements were made for the reception of sick and wounded from the front on board the *Victor Emanuel* and other auxiliary floating hospitals. All convalescents, and as many sick officers and soldiers as practicable, were transferred to the hospital depôt ship off Cape de Verdes. The general hospital at Cape Coast Castle and that at Connor's-hill were likewise cleared of their patients, so that there was ample provision available for all the sick and wounded as fast as they could arrive at the base of operations. All the more serious cases were to be reserved for the *Victor Emanuel*, the others being relegated to the *Tamar* and *Himalaya*. It was calculated, according to the information received by us, that by about the middle of last month there would have been a total available amount of floating hospital accommodation equivalent to at least 500 sick and wounded. We are assured that the hospital arrangements, both on shore and afloat, have been uncommonly well carried out, and that the medical officers of both Services have so cordially co-operated with one another as to obviate the occurrence of any hitches. In a war of this kind the men with the column operating in front are necessarily brought under the more immediate notice of the General, and their services are recognised in despatches;

but it seems to us but fair to remember that an immense amount of responsibility rests with those at the base of operations, in providing for the reception and accommodation of sick and wounded men from the front, and in maintaining a regular current of invaliding, so as to secure the requisite accommodation when needed and prevent overcrowding, and in otherwise securing an efficient sanitary state of ships and hospitals. There has never been a campaign in which the medical arrangements required the exercise of so much foresight. The success of the undertaking depended in an unusual degree on the doctors, and we feel bound to say that their requests have been complied with, as far as practicable, by all departments, and by none more so than by the Admiralty. The sailors, we know, did their duty right nobly in the front, and the army doctors are loud in their praises of the transport arrangements.

YELLOW FEVER.

WE have more than once referred to the terrible epidemic of yellow fever which visited the little town of Shreveport last autumn. A few particulars of the outbreak and nature of the disease, as observed by a medical man on the spot, will not therefore be out of place. Dr. Henry Smith, of New Orleans, who was deputed by a life insurance company to report on the epidemic, left his house on Sept. 10th, and arrived at Shreveport on the 13th, after a journey of nearly seventy hours. He found the town in a state of terror and panic impossible to describe. All who had been able to fly had done so, and desolation reigned supreme. Dr. Smith worked night and day with a devotion which does him honour. After pointing out certain defective sanitary conditions apparent in the locality, and which must have had a powerful influence in prolonging the existence of the disease, Dr. Smith gives the following details, based on his treatment of 243 cases of unequivocal yellow fever. The fever often came on very suddenly, with rapid pulse and high temperature, generally preceded by a severe chill, with pain in the head and back, occasionally accompanied by spasms of the lower extremity. The skin became hot and dry, the pulse full and strong, ranging from 120 to 140 and upwards. The tongue was coated and dirty, with a flabby appearance. The average duration of the febrile paroxysm was sixty hours, or about two days and a half. In favourable cases the establishment of convalescence was succeeded by great depression of the vital powers, the pulse falling from 140 to 80, 70, and even 50, while in one case it sank as low as 40 beats in a minute. In the graver cases the face was suffused, and the eyes highly injected. There was often furious delirium, while profound stupor marked the last stages. The perspirations were variable, and occasionally offensive. The skin was bronzed and yellow, but this appearance was often wanting. In many of the fatal cases, simultaneously with yellow eyes and skin, there were black stools, reddish-dark urine, and bloody vomit, while the skin was covered with bluish or black patches. During convalescence abscesses and eruptions on the face were frequent, and desquamation of the cuticle was very common. A noticeable fact was the rarity of black vomit, and when it did occur the patient sometimes recovered. In a large proportion of the cases the kidneys were affected early in the disease, frequently resulting in fatal suppression of urine. Retention was common, necessitating the constant use of catheters. As regards the purely medicinal treatment of the disease, Dr. Smith found that quinine and opiates were as a rule inadmissible, and he is satisfied that the former agent cannot be used in uncomplicated yellow fever. From ample trials he regards aconite as the most useful drug to be exhibited. It produced free and sometimes copious diaphoresis, and appeared to exert great controlling influence on the heart's action, and indirectly over the nervous system. Its administration, however, requires great caution, and its effects should be carefully watched.

THE CASE OF POISONING BY A QUACK.

WE have already commented on this case, in which a quack doctor, *alias* a herbalist, at Hitchin, gave pills to a young man for a cough—gratuitously be it said—with the effect of causing death, with the symptoms and pathological accompaniments of arsenic poisoning. The case has been tried at the Hertfordshire Assizes. Dr. George Harley said that he found arsenic in the pills, in the stomach and intestines, and also in the spleen. He declined to give a positive opinion as to the quantity contained in the pills, further than that they contained more than a medicinal dose, and that the appearances of the intestines described by Mr. Shillitoe, who was only called to the case after death, corresponded with the appearances produced in the stomach of an English terrier by 6¼ grains of arsenic. On being pressed by the prisoner's counsel with not having made a quantitative analysis, he defended himself by saying that as the pills were limited in number he could not waste them by making a quantitative analysis. Such an analysis was quite unnecessary when the existence of arsenic in the pills and the extensive inflammation of the small intestine are considered together, in connexion with the fact that there was no other disease to cause death, which happened apparently in the way of exhaustion and syncope, after sickness and intestinal pain. The chief point in the defence was that, though on the market day in question, and for two years previous, the prisoner must have done a good trade, no other complaint of the effects of his pills was forthcoming. But one case of poisoning is crime enough, and the facts were unassailably proved, and even demonstrated, by Dr. George Harley, who also described the pills as very unequally and badly made, differing much in weight. The jury found the prisoner guilty, but with a recommendation to mercy, on the ground that he administered the medicine without knowing it to be so poisonous in its nature. The public never will look upon the ignorance of a quack as any but an excusing circumstance. Even Mr. Justice Lush thought the case one for a not severe sentence. And so it will happen that quacks will go on injuring the people, if not actually killing them, with comparative impunity. The public is not a little indebted to Mr. Shillitoe for his quick and accurate perception of the nature of this case. The "Professor" was sentenced to three months' imprisonment without hard labour.

THE VENTNOR CONSUMPTION HOSPITAL.

THE Committee of this Hospital has just issued its fifth annual report, from which it appears that during the past year two additional blocks of buildings have been built, the funds having been supplied by Sir William Martins and Mr. William Leaf. The sixth block is also far advanced, the cost thereof being borne by Mrs. Remington and Miss Leicester. Funds for the seventh are already procured, and the eighth only has to be provided for. So that when this last pair of houses is built the original design of the institution—viz., the erection of sixteen semi-detached houses, for the accommodation of 100 patients—will have been fully and faithfully carried out.

The subway connecting the houses is completed, and materially aids economy of service, and the chapel is nearly finished. A scheme has been proposed for the erection of a hall in which the patients can meet, and in which occasional entertainments can be given for the benefit of the

institution. During the past year 200 men and women have been under treatment as in-patients, their stay varying from one to ten months, the majority staying for a period of several months. The medical report records that of that number 38 left the hospital in improved health, 55 were much improved, 37 very greatly improved, and 13 restored to health. In 25 cases the disease made no progress, 12 became worse, and 10 died. Omitting 10 who had only been in hospital a few days, and those who died, "there was a total gain in weight of 731¼ lb., against a loss of 143 lb., this great increase of weight being gained by 136 patients, while the loss of weight was thus distributed:—22 lost the merely nominal amount of 16¼ lb., and the 22 remaining 126¾ lb.; thus, whilst the average gain for a patient was 53·37 lb., the average loss was only 3·25 lb." We congratulate Dr. Hassall on the successful result of his labours in connexion with this hospital, for there is no doubt that its rise and progress are mainly due to his untiring and well-directed exertions.

DENTAL SURGERY.

AT the opening of the new Dental Hospital in Leicester-square on the 2nd inst., Mr. Sercombe, the president, delivered an inaugural address. After congratulating the Society upon having entered upon a new lease of life under very favourable circumstances, he commenced to trace the history of dental surgery from the earliest times, showed that the dolichocephalic and brachycephalic skulls exhibited indubitable signs of alveolar caries and abscesses, that the ancient Egyptians suffered from and treated these diseases, and that painstaking researches show that dental practice of some sort or other has existed in all ages. Passing on to modern times, the great special treatise on the subject came from the pen of John Hunter, and it is to be recorded to the honour of Guy's and St. Thomas's that special courses of dental lectures have been delivered for upwards of a century. The speaker then proceeded to enumerate the special qualifications required for the practice of dentistry, deplored the existence of many black sheep in the flock, and emphatically denounced the "specious and lying advertisements" on the subject frequently inserted in some of the daily and weekly journals. At the foundation of the Odontological Society it was almost universally admitted that "dental surgery was a well-defined specialité too closely allied to general surgery to be separated from it," and hence at the first inaugural lecture it was stated that the dentists of England should look to the College of Surgeons for that examination which would test their fitness to practise. A chief object of the Odontological Society is, according to the speaker, not only to maintain a special school, but "to establish points of union amongst practitioners, and to collect and discuss dental literature." Mr. Sercombe concluded an eloquent and interesting address by a general description of the establishment museum, and paid a special compliment to Mr. Edwin Saunders, "to whose intelligent munificence the initiation of the present movement is due."

INDIAN MORTALITY.

ACCORDING to the recently published Blue-book containing a report on measures adopted for sanitary improvements in India from June 1872 to June 1873, together with the abstracts of sanitary reports for 1871, we learn that the following was the mortality among the European troops in 1872. For the three Presidencies it was 24·14 per 1000 on an average strength of 58,870 men. The deaths in the Presidency of Bengal were 27·36, in that of Madras 18·89, and in that of Bombay 18·86 per 1000. These figures do not include the women and children of British regiments. The death-rates per 1000 among the former for the year 1872 reached 46·12 for Bengal, 33·41 for Bombay, and 14·72 for Madras Presidency, or 36·54 for India; while the mortality among the children was 112·95 per 1000 for Bengal, 68·36 for Madras, and 96·83 for Bombay, or 99·08 for India. It is very sad to contemplate this large loss of life among the women and children belonging to our European troops in India.

From a statement derived from the same source, showing the mortality among the children of European regiments in the Bengal Presidency from 1860 to 1871, we learn that in 1860 the deaths from all causes among them was 102·64 per 1000; in 1867 the ratio of mortality was 104·95 and in 1869 145·22 per 1000, while in 1864 it was 71·36 per 1000. We hope that a greater attention on the part of parents to the points laid down and published in a small tract for their guidance as to life in India may not be without some effect. Professor Fayrer has remarked on this subject of European child-life in Bengal that, although the mortality among European children in India is, as a rule, very high, yet, under judicious management and proper hygienic conditions, more favourable results may be obtained. The European child cannot thrive and be reared so well in the plains as in the hill stations of India or in Europe; but life and a very fair amount of health are possible even in Calcutta under favourable circumstances, as Dr. Fayrer has shown by the results obtained at the European Female Orphan Asylum in that city.

SANITARY NOTES.

DR. ALFRED HILL, medical officer of health and analyst for Birmingham, has forwarded a quarterly report ending Dec. 31st of last year. The births and deaths are recorded and epitomised. 214 cases of small-pox occurred in the borough during the quarter, and a large number of recommendations concerning vaccination have been compiled and issued by the medical officer, most of which are very sensible and practical; and pawnbrokers (a numerous class at Birmingham) have been properly warned as to the provisions for disinfection of clothing under the 38th section of the Sanitary Act of 1866. The inspectors' work appears to have been extensive, for 2776 nuisances were reported, 2481 notices were served for the removal of nuisances, 171 summonses were issued, and the same number of persons convicted, 720 filthy houses were reported, and 222 houses in which contagious diseases existed. In the matter of slaughter-houses, 51 seizures of bad meat, consisting altogether of 5215 lb., were made, and 8 seizures of bad fish. In the analytical department, several prosecutions were instituted on the score of adulterated tea. So much for the sanitary condition of Birmingham.

Dr. George Ross, medical officer of health for the St. Giles's district, has published a pamphlet on the ventilation of schools, hospitals, law courts, and public buildings, the substance of a paper read before the Association of Medical Officers of Health at the close of last year. After recapitulating the disadvantages of the present systems adopted at St. Thomas's Hospital and various other public buildings, the author describes his own plan, which consists in the withdrawal of the foul air as soon as generated by means of small ducts (placed in various parts of the room, and opening breast high) into a large common duct under the floor, this common duct leading into a furnace, by which latter the current of foul air is supposed to be drawn from the room. Pure air is to be admitted through the ceiling or cornices, having been previously heated by a special apparatus to a temperature of from 60° to 65° F. All gas-burners and open fires are to be excluded from the room, which should be provided with double sashes. Dr. Ross

gives a special paragraph to the cottage hospital system, and claims the merit of having primarily suggested it. We endorse most of his enthusiastic remarks as to its many obvious advantages. But if London continues to increase at the present "per cent. per annum," and *a fortiori* the value of the land upon which it is built, he must give up "hoping to see a great 'metropolitan cottage hospital' established which shall be a model to Europe."

A report by Dr. Jacob, medical officer of health for the Chertsey district, upon the sanitary condition of the little Surrey village of Hersham, was presented at the last meeting of the local authority, and led to considerable discussion, but not, so far as we can gather, to any practical result. The drainage appears to be at present totally unprovided for, except in so far as the two village ponds have been found convenient for the overflow of adjacent privies. Cesspools, "seldom or ever water-tight," abound, and it is therefore not surprising that an abundant water-supply derived from shallow wells is, for the most part, "extremely bad and quite unfit for domestic use." Overcrowding, an ordinary feature of unreformed rural economy, combines with the above-mentioned causes to render Hersham less healthy than it ought to be. Regarding the drainage, as the most important matter, the medical officer seems to be of opinion that a system of sewerage would be preferable to any attempt to render the existing cesspools less hurtful; but some members of the sanitary board were opposed to what they feared would be so expensive a way out of the difficulty, and advocated the dry earth system as the most suitable under the circumstances. And so the matter rests for the present.

HOSPITAL CONSTRUCTION.

WE would call the attention of the profession to the first article in the present number of THE LANCET of a series of papers to be published on hospital construction in this journal. The subject is one which, at the present time, possesses a more than common degree of interest in connexion with the alleged influence of hospital conditions in the production of certain classes of disease. In stating that the articles in question are the conjoint work of Dr. Sutherland, a member of the Army Sanitary Commission, and of Captain Galton, F.R.S., Director of Works, Office of Works, we furnish a guarantee that the papers will embrace the results of a long and very intimate practical acquaintance with the subject in all its details, and we may hope to ascertain, not only what the authors consider the best, but at the same time the most convenient and economical methods of procedure for securing a good sanitary condition, and an efficient system of administration of hospitals of different construction adapted to the various requirements of large and small centres of population.

MEDICAL OFFICER OF HEALTH FOR CAMBRIDGE.

AT a meeting of the Cambridge Urban Sanitary Authority on the 3rd inst. Mr. Hamblin Smith proposed that a medical officer of health should be appointed at a salary of £500 a year. The Rev. J. F. Hardy seconded the proposition. Dr. Fawcett, a medical man of the town, proposed, as an amendment, that the salary should be £250 a year. This amendment was carried by 12 to 8.

We cannot tell, at present, what influences determined Dr. Fawcett to propose the lesser salary. It is certainly very unusual for members of our profession to be advocates of illiberal policy. At the salary now voted, it will be impossible to secure the services of a thoroughly trained health officer who would devote the whole of his time to his important duties. To eke out the pittance, the gentleman appointed will no doubt be allowed to have private practice. If this be the case, we believe many of the medical men practising in the town will be candidates; and among them there are some who, from their general acquaintance with sanitary details, would in time make very good health officers. We hope the most efficient candidate will be appointed, and that there will be no suspicion of a job in the election.

THE THURSLEY POISONING CASE.

THE village of Thursley, near Godalming, in Surrey, has been the scene of a most extensive case of poisoning, whereby the greater part of an entire family have been killed. The facts are as follows:—Thomas Coombes, a labourer, with his wife and five children, came to reside in Thursley less than a month ago, and ten days after their arrival illness set in in the family. The whole family was taken ill on the same day, Sunday, Feb. 22nd. On Feb. 24th they were seen by Mr. Yate, of Godalming, and were found to be suffering with all the symptoms of irritant poisoning—purging, vomiting, pains. One of the boys, aged 10, died on Feb. 28th, and the mother two days later. A post-mortem examination of the boy was made, and distinct signs of irritation of the stomach were discovered. The inquest, which was opened on the 31st ult., was adjourned till the 17th of March, in order that an analysis of the contents of the stomachs of Mrs. Coombes and her son should be made. Since the adjournment of the inquest the father and two more of the children have died; so that out of a household of seven only two remain alive. That they have been the victims of irritant poisoning there can be no doubt, but what was the source of the poison has not yet been made clear. A paragraph has appeared in some of our contemporaries to the effect that it was due to the drinking of water from a bucket which had previously contained an arsenical sheepwash. Doubtless, at the adjourned inquest full and sufficient evidence will be forthcoming as to the source of the poison.

ROYAL SURREY COUNTY HOSPITAL.

THE annual report of this institution, which was presented at the General Court of Governors recently held, shows that during the year 1873 the total number of in-patients was 391 and of out-patients 3220, in both cases an increase upon the numbers for 1872. Notwithstanding an increase of £12 in subscriptions and of £100 in congregational collections, the Committee have been obliged to borrow money to enable them to meet their outgoings, and, with the rise in prices generally, they naturally express considerable anxiety about the future financial condition of the hospital. They therefore earnestly and most justly appeal to the public for support adequate to the needs of an institution which is doing such a great and useful work for the county; and especially they express a hope "that there may be no church or chapel in Surrey which will not have its collection for the County Hospital during this and succeeding years." Undoubtedly it is little to the credit of a leading county like Surrey that it has not ere this adopted the Hospital Sunday plan; and if the Hospital Committee are really in earnest in wishing to see the plan tried, they should put their shoulders vigorously to the wheel, and take steps at once to call an influential meeting of the county laity and clergy to consider the matter. If they are content simply to put a paragraph into their report suggesting that "the clergy in general" should institute a Hospital Sunday for the benefit of the County Hospital, we can only wish them all the success they will deserve. Things worth having are usually considered worth taking some trouble to obtain. Of course any such movement would

have to be confined to the extra-metropolitan part of the county, so as to avoid any clashing with the Mansion House operations, which, by the same rule, ought not to overstep the metropolitan boundary.

THE RESPONSIBILITIES OF MANUFACTURERS.

SOME few days ago a meeting was held in Lancashire, for the purpose of discussing the effects produced upon animal and vegetable life by exhalations from chemical and other works in the county. Professor Cameron, of Dublin, who had been requested by the Lancashire Chamber of Agriculture to investigate the subject, deposed that in consequence of the muriatic acid evolved by the alkali works, sulphur and arsenic from copper-smelting works, nitrous and hydrofluoric acids, sulphuretted hydrogen, and chlorine from others, the trees and hedges in the neighbourhood of St. Helens, Warrington, Widnes, Frodsham, and Runcorn and Ditton were all very much injured, and in some cases entirely destroyed. Dr. Cameron argued that some steps should be taken to provide a remedy, and suggested that all these factories should be officially supervised, as is the case with alkali works, and that the amount of damage done to the crops, with the consequent loss, should be ascertained by assessment. Dr. Angus Smith also spoke on the subject, and indicated that a little more pressure in the way of prevention should be applied to the manufacturers. We demur to the proposition of Dr. Cameron as to assessment of and charge for damage done, believing it to be both impracticable and impolitic. An exhaustive official inquiry into the whole subject, with the view eventually to introduce a preventive scheme, would, as we take it, be the proper mode of proceeding.

CRUVEILHIER.

FULL of years and honours, and the possessor of a handsome fortune acquired by his profession, Cruveilhier has passed away. He died at his château near Limoges, to which he had retired just before the war. His researches in morbid and normal anatomy, embodied as they are in standard treatises, have long been familiar to the medical world, as his short, slight figure, with his well-marked countenance and engaging smile, were to the Parisian public, particularly to the denizens of the Quartier St. Roch. To his indomitable industry he owed all his advancement in life, from his professorship of morbid anatomy in the School of Medicine to his appointment as physician to Louis Philippe. Devout in religion and benevolent to the poor, whom he treated gratuitously every Sunday, he was known as the "good Cruveilhier." Of late years his physical and mental powers began to wane, and he resigned to Vulpian his post at the Faculté.

BILLROTH'S OPERATION FOR REMOVAL OF THE WHOLE LARYNX.

ON the 27th ult. the patient was exhibited to the Imperial Medical Society of Vienna. The operation, to which we have previously referred, had been performed Dec. 31st, 1873, and now, thanks to a very ingenious apparatus, the man is enabled to speak and swallow. Many contrivances were tried before the present one, which consists principally of two curved canulæ, to which are added a trachea tube and a voice canula. The apparatus for phonation is supplied with a peculiar kind of tongue made of very thin silver. The patient was desired to read aloud before the members of the Society, and, though he spoke pretty distinctly, great attention was required to follow him. The poor man looks very thin and anæmic, and it is to be feared that carcinoma will ere long break out in other parts of his frame. Billroth's operation remains, nevertheless, a great surgical feat.

THE EMIGRATION SERVICE.

WE have received from a correspondent at New York some critical notes on a report by Dr. Woodworth, supervising surgeon of the United States Marine Hospital Service, on the condition of emigrant ships. The investigations of this officer comprised the examination of twenty-one steamships and nine sailing vessels, and all particulars as to accommodation of passengers, food, ventilation, &c., are carefully and systematically recorded. These particulars, and the conclusions arrived at, are however almost identically similar to those set forth by our Sanitary Commissioner in the report on emigrant ships published in THE LANCET some months ago; and, in congratulating Dr. Woodworth on the painstaking way in which a somewhat difficult duty has been carried out, we are glad to know that he has arrived at the same conclusions as ourselves with respect to existing defects and reforms needed in the transatlantic emigration service.

PASTEUR AND HIS OPPONENTS.

IT has been lately contended, at the Academy of Medicine in Paris, that putrefaction may take place without the intervention of germs, the decomposition of the brain and spinal marrow after death packed in the skull and column being a good example. But Pasteur contends that if the germs do not penetrate from without they exist beforehand in the substances mentioned. Eggs do putrefy from the penetration of germs situated in the cloaca; if the eggs are emptied into a glass vessel protected from the contact of atmospheric air they do not putrefy, nor even does the chick putrefy when dying in the egg. M. Chauffard, taking a share in the discussion, denied that the change in the brain which had been mentioned was really a putrefying process; it was simply a diffluence, and actual putrefaction invaded the brain only at the period when the whole body decomposed. M. Wurtz agreed in this respect with Pasteur's supporters.

MUSHROOM ANALYSTS.

WE are all familiar with the cry that the professions are overstocked, and it is a new sensation to hear of official places by the score and no persons to fill them. Such a state of things has, however, supervened on the passing of the Adulteration Act, and the State is now calling for public analysts, and hardly any one is qualified to respond to the call. Under these circumstances a number of persons have taken office without being qualified to do so, and numbers of these appointments have been thrown upon single individuals, who have thereby been converted into pluralists. All this will no doubt right itself in course of time, and presently the Act will, it is hoped, work well enough. In the meantime, however, we would warn those who are learning the duties of these appointments that prudence is required of them. The public and the "harassed" interests have wind of the incompetence of the majority of the analysts, and are crying "Mushroom analysts!"

ALLEGED SUICIDE IN A CAB.

WE have no further comment to make on this case at present than to protest against the conduct of the coroner, Mr. Bedford, towards Mr. Taylor, the house-surgeon of Charing-cross Hospital. Mr. Bedford wished to have from Mr. Taylor an account of the injury received before Mr. Taylor had made a post-mortem examination. Mr. Taylor most properly declined; whereupon the coroner complained of his "unsatisfactory tone and manner," and punished him by dispensing with his services, and by directing "an independent medical man to make the post-mortem examination."

This is a very undignified procedure on the part of a coroner. In a case of such melancholy importance, it was due to the public and to everybody concerned to have the cause of death fully investigated; and this could only be done by a careful post-mortem examination, which, it would seem, from some mistaken notion of economy, Mr. Bedford was trying to avoid. We hope that all medical men will, in similar instances, act as Mr. Taylor did.

MEDICAL SOCIETY OF LONDON.

THE hundred and first anniversary of this Society was celebrated on Monday by a banquet in St. James's Hall; Dr. S. O. Habershon in the chair. More than one hundred gentlemen, among whom were Sir George Burrows, president of the Royal College of Physicians, Mr. Curling, president of the Royal College of Surgeons, and Mr. T. Hill, president of the Pharmaceutical Society, sat down to dinner. At the close of the evening, which was notable for the excellence of the speeches and the singing, the Fothergillian Medal was awarded to Dr. J. K. Spender, of Bath, and the silver medal to Dr. Wiltshire for services vouchsafed to the Society.

THE SEWERAGE OF ST. PETERSBURG.

IT would appear that the municipality of St. Petersburg and the Technical Society to which the question was submitted have expressed an opinion unfavourable to the adoption of water-sewerage in that capital. The municipality is understood to be in favour of a modification of Liernuhr's pneumatic system of sewerage. Against the conclusion of the municipality with reference to water-sewerage very earnest protests have been made by certain medical men, particularly Professor Dobroslavinè and Dr. Erichsen. Both insist that the conclusion of the municipality has been formed upon an imperfect appreciation of the facts relating to water-sewerage as they may be studied in this country and in several important cities of Central Europe. The evidence from experience in favour of the pneumatic system of sewerage is in no degree comparable, they maintain, with that in favour of water-sewerage; while, on the other hand, the difficulties peculiar to the pneumatic system must, both believe, prove fatal to its efficiency if attempted on any large scale.

THE LATE DR. GWYNNE HARRIES.

WE learn with much gratification that Mr. Gladstone, before leaving office, conferred a pension of £50 per annum on the widow of the late Dr. Gwynne Harries. It is very pleasant to have to record that one of Mr. Stansfeld's latest acts in vacating the Presidency of the Local Government Board was the recommendation of this pension. The act will remain in the grateful remembrance of the profession, and enable it favourably to distinguish Mr. Stansfeld the man from Mr. Stansfeld the politician.

THE SURPLUS.

WHATEVER the Government determines not to do in the way of abolishing the Income-tax, it is devoutly to be hoped that they will make such modifications in its incidence as will relieve men who have to live by great labour, and whose means are dependent on the uncertain condition of their health and strength. The professional classes are very enduring, and they are not given to bother Chancellors of the Exchequer with deputations so much as other classes, but surely these are not reasons for forgetting their peculiar claims to consideration at this remarkable juncture.

THE uses of chloral were discussed at the last sitting of the Société Thérapeutique. Its efficacy in cancer was pointed out by Dr. C. Paul, who had used it in the shape of suppositories containing fifteen grains of chloral. Introduced into the vagina, they had procured sound sleep during a whole night in cases where considerable doses of morphia had no anodyne effect, while the nature of the secretions, and especially their fetor, were favourably modified. Dr. Martineau mentioned a case of recurring cancer of the breast which had almost reached the thoracic walls and the lung. Pledgets of lint steeped in a solution of chloral were introduced. Three days after the surface had assumed a healthy hue, and was granulating kindly; the fetor had vanished and the hæmorrhage stopped. Cancer of the uterus had likewise improved, so far as the pain and fetor were concerned, under similar treatment.

AT a meeting of the Board of Works for the Strand district on Wednesday last, the following motion by Dr. Joseph Rogers was passed:—"That whereas the existing supply of public urinals in the metropolis is very inadequate to the necessities of the population, and that no provision whatever has been made for the accommodation of women, who have been and are great sufferers therefrom; and seeing that it is desirable, in the interests of decency and of the public health, that much greater accommodation should be provided, and which can only be done judiciously and economically under one general scheme; this board do memorialise the Metropolitan Board of Works, asking them to consider the matter, with the view of dealing with the subject." Copies of the resolution will be sent to the vestries and district boards of the metropolis, asking their co-operation.

Food, Air, and Water for the current month contains some elaborate analyses by Dr. Hassall, of a variety of samples of sherry, undertaken with the view of ascertaining how far the statement recently made is correct that the must or juice of the grape at Xeres is dusted over with sulphate of lime, as well as to determine generally the question of the purity of the sherries imported into this country. Nineteen samples in all were examined, eight of which were of the highest quality procurable. Dr. Hassall found that the whole of the wines were fortified to a large extent with extraneous spirit, while seventeen of the samples were markedly plastered. Five of the wines contained considerable amounts of cane sugar, and two consisted chiefly of spirit, sugar, and water flavoured—containing no wine, in fact. Not one of the samples could be regarded as the pure and natural product of the grape.

THE President and Fellows of the Royal College of Physicians of Edinburgh gave a reception last week, which was attended by about ninety members of the profession. In the course of the evening Dr. M'Kendrick delivered the first of two lectures on "The Present State of our Knowledge regarding Sensory Impressions." The lecture, which was illustrated by diagrams, was well received. The second lecture, on the subject of Sound and the Action of Light on the Retina of the Eye, was delivered on Thursday last.

A CORRESPONDENT of the *Daily Telegraph* claims the sympathy and support of the public on behalf of the Eastbourne Convalescent Hospital, an institution well worthy of assistance in the shape of donations and subscriptions. During the year ending last October 1463 patients were received into the hospital, while no less than 200 applicants were compelled during the summer months to wait admission on account of the limited space at the disposal of the authorities.

A MISUNDERSTANDING seems to have arisen between Mr. William Hope, of Breton's Farm, and the Local Board of Romford, as to the terms on which the former agrees to take the sewage of the town. Actions in which the board was defendant and Mr. Hope was plaintiff, and *vice versâ*, were brought on for hearing at the Chelmsford Assizes, but, on the suggestion of the presiding judge, it was agreed that the questions in dispute should be submitted to arbitration, in accordance with one of the clauses of the lease held by Mr. Hope. It would be a matter of much regret if any untoward circumstance should be allowed to arise to invalidate the result of the interesting experiment which has been carried out thus far with so large a measure of success.

WE learn from America that a catarrhal disease similar to the epizootic of two years ago has again attacked the horses in that country, and is likely to become epidemic. The symptoms of the disease are swollen legs, sore eyes, and the outbreak of pustules over the body, accompanied by great prostration. The treatment recommended by veterinary surgeons in New York and other large towns is carbolic acid and sulphate of iron.

THE inquiry into the cause of death of the late Mrs. McLeod, wife of Dr. McLeod, of Carlisle, has terminated in the discharge of the jury and the complete exoneration of Dr. McLeod. The coroner, Dr. Elliot, communicated to the jury a written opinion from Mr. Justice Denman, in which his Lordship stated that it was "clearly a case for a verdict of homicide by misadventure," thus acquitting anyone of blame.

AN official inquiry has been opened at Richmond by Major Tulloch, on behalf of the Local Government Board, into the proposed appropriation by the local sanitary authority, for the utilisation of the sewage of the town, of 30 acres of land close to the soap works at Barnes. Two petitions of the inhabitants of Barnes against the scheme were presented. The inquiry was adjourned.

AT a meeting of the Cambridge University Union held last week, the following motion, proposed by Mr. H. Stevens, of Downing College, was, after discussion, carried by a majority of sixty-one votes: "That this house approves of the practice of vivisection when performed by skilled physiologists with a view to the advancement of science."

THE post of Medical Inspector to the Local Government Board, vacant by the death of Dr. Gwynne Harries, has been conferred on Dr. F. J. Mouat, Deputy Inspector-General of Hospitals. This gentleman will now, we suppose, have to relinquish his appointment of member of the Medical Council of a Sanitary Milk Company.

Saunders's News Letter considers it highly probable that one of the first acts of the new Government in Ireland will be the bestowal of a baronetcy on an Irish surgeon. Dr. Robert Adams, Surgeon in Ordinary to H.M. the Queen in Ireland, and Regius Professor of Surgery in Trinity College, Dublin, is generally named for the honour.

PROF. BENTLEY will on Saturday, March 14th (this day), deliver at the Museum in the Royal Botanic Society's Gardens, Regent's park, a lecture on the Properties and Uses of Eucalyptus globulus and other species of Eucalyptus. The lecture commences at 4 o'clock.

SUBSCRIPTIONS to the Sedgwick Memorial, according to a report read at a committee meeting presided over by Prof. Humphry, now exceed £10,000.

THE Duchess of Edinburgh has graciously consented to become a patroness of the annual ball in aid of the funds of University College Hospital, to be held at Willis's Rooms on Thursday, May 7th.

THE widow of Dr. Neil Arnott has offered, through Dr. Lyon Playfair, M.P., the sum of £1000 to the Edinburgh University, for the promotion of natural philosophy in that seat of learning.

MR. PRESCOTT HEWETT has been appointed Surgeon in Ordinary to H.R.H. the Prince of Wales.

THE SIAMESE TWINS.

WE have received at length the report of the commission appointed to conduct the post-mortem examination of the Siamese Twins. It is not in every respect a perfect report, since it does not include a record of the conditions of the thoracic viscera, nor of the brain. As we had anticipated, the bodies were embalmed, and the embalming solution was injected as the first step. The right common iliac artery in each subject was exposed, and the injection, a solution of chloride of zinc, was thrown first up the aorta until it appeared in incisions made into the fingers, and then down the iliacs until it appeared in incisions made in the toes. After this operation, the incision was extended on each side to the margin of the band or connecting-link that held together the two bodies, and the examination of the band was carried out.

The operators were Dr. William H. Pancoast and Professor Harrison Allen. Their report was read at a special meeting of the College of Physicians of Philadelphia on Wednesday, the 9th of February. Dr. W. S. Ruchenberger, of the United States Navy, occupied the chair, and Dr. Hollingsworth, the regular medical attendant on the twins during their lifetime, was present. The bodies of the twins were on the table, prepared for the examination of the Fellows of the College who were present at the meeting.

Before we pass to the description of the anatomy of the twins given by Drs. Pancoast and Allen, and reported at length in the *New York Times* of February 20th from the *Philadelphia Medical Times* of the same date, we may briefly refer to a few facts relating to the history of the two singular beings whose lives, in persistent bondage, have at last closed. They have been called in anatomical language—we had better say jargon—monsters. They were not monsters, and any classification that makes them so unnecessarily outrages humanity in pretence of science. Chang and Eng were men. They were accidentally bound together in a living tie, it is true, but they were psychologically and, we may fairly say, physiologically, distinct persons. The twins were born in the year 1811 in Siam, and were soon heard of throughout the world. While young they were exhibited in various parts of Europe and America, and in 1829 they were in England. Finally they settled in North Carolina in America, in the neighbourhood of Mount Airy. They married, and had each of them large families; Eng had ten children, and Chang nine. A few years ago they left their home, and made another exhibition tour. In 1869 they were in England, and on Feb. 13th of that year a special report on them was published in THE LANCET.

Returning to their home in North Carolina, the twins continued to maintain an active life, but a life less happy, it would seem, than it previously had been. Chang lost his good temper, became exceedingly irritable, and the result was a quarrel, ending actually in blows. One day they

came before the law for an encounter, and soon after they begged Dr. Hollingsworth to divide them, Eng declaring Chang was "so bad" he could live no longer with him, and Chang declaring he was satisfied to be separated. Dr. Hollingsworth persuaded them to remain as they were, and in the end they became again reconciled to their fate. When they were in England, in 1869, it was known that Chang was physically much inferior to his brother Eng. He had always been considered feebler in body, stronger in mind; but now his physical weakness was most marked. Our report above referred to is singularly explicit on this point. Dr. Anstie had measured the circulations of the two men with the sphygmograph, and his tracings may now be re-read with double interest. The pulse of Eng indicated a high tension of the arterial system and its contents; it required a pressure of 300 grammes before a trace worth having could be obtained. The pulse of Chang showed a lower tension, so that the spring pressure had to be lowered before a large curve could be obtained. "The comparison of those traces," it was reported at that time, "is most instructive. Eng is the taller and stronger in appearance, and there can be little doubt, from the pulse, that he possesses the stronger heart of the two. Chang is somewhat feebler in general appearance; *his arterial system is evidently more advanced in the changes which indicate the organic degeneration of later life;* and in interesting correspondence with this, it is plain from the sphymographic record that he possesses a weaker heart than his brother." How far these views were correct the sequel will show. It is specially worthy of notice in this place, and as bearing on these differing physical conditions of the two brothers, that Chang drank freely, and even at times got intoxicated, while Eng was temperate.

During the later years of their lives the brothers established a rule that each should keep his own house. Their houses were a mile and a half apart, and they lived for three days in one house, and for three days in another. Eng visited Chang for three days, then Chang visited Eng. They adhered to this plan so rigidly that death or sickness in one of the houses made no difference to the proceeding.

In 1870 Chang continued to fail in health, and in August he suffered from an attack of paralysis, an event which would justly have been prognosed by the sphygmographic readings of his pulse. He never fully recovered from this state, and he grew desponding, saying often during the last year of his life, "We can't live long." It is clear from this that he anticipated they would both die at the same time, although Dr. Hollingsworth had assured them this was not a necessary consequence, and had promised to separate them if one should die before the other.

On January the 15th of the present year it was the proper day for the brothers to go from Chang's house to Eng's. Chang at this time was very ill; he had cough and pain in his chest. The weather being extremely cold, Dr. Hollingsworth begged them not to venture out; but they, as usual, were obstinate, and rode the distance from the one house to the other in an open waggon. On the morning of the 17th Chang reported himself better, but said that during the night he had had so severe a pain in his chest that he thought he should have died.

The brothers retired to bed on the 16th, Eng in perfect health, Chang ill. They slept in a room in which there was no one but the young son of Eng. Before getting into bed they sat down in a large double chair, specially made for their accommodation. Eng smoked his pipe until he became drowsy, then he said, "We must retire"; but Chang replied that he could not lie down with comfort as his breathing was so bad, and that it would kill him to lie down. At last they went to bed, and after an hour or two one of them was heard to call out. When Eng woke up on the morning of the 17th, he asked his son, "How is your Uncle Chang?" The boy answered, "Uncle Chang is cold. Uncle Chang is dead." Upon this Eng went into a state of great excitement. He commenced crying out, "My last hour is come!" He told his wife that he was very "bad off," and that he could not live. He complained of agonising pain and distress, especially in his limbs. The surface of his body was covered with a cold sweat. At his request, his wife and children rubbed his legs and arms, and pulled and stretched them forcibly. This was kept up persistently for an hour, when he fell into a deep stupor in which he died without any convulsion or struggle. Unfortunately the death had taken place before Dr. Hollingsworth had time to arrive.

From the fact that Chang was quite cold at the time when Eng woke, it is supposed that he (Chang) had been dead already for some time, but it is impossible to conjecture what length of time. It seems certain, however, that Eng was not aware, from any sensation of his own, of his brother's death. His excitement and ultimate collapse came on upon hearing of the fatal event.

The cause of death of the brothers has not been satisfactorily explained. Dr. Allen is of opinion that Chang died of a cerebral clot. From inquiry at his (Chang's) home he was led to believe that the lung symptoms were not due to pneumonia, indeed were not severe enough to have been caused by pneumonia. The suddenness of the death, the general atheroma of the arteries, and the fact that there had previously been an attack of cerebral paralysis, all indicate, Dr. Allen thinks, that the death was of cerebral origin. Respecting the death of Eng, he believes that it arose from fright and emotional disturbance of the nervous system, the mind remaining clear until stupor came on; a stupor, he says, which was probably syncopal. This view is supported by the fact that his (Eng's) bladder was found distended with urine after his death.

The evidence seems to us satisfactory as to the cause of the death of Eng; the emotional excitement, the cold perspiration, and the unconsciousness, point unequivocally to terror as the immediate cause of death. The man had made up his mind that he must die with his brother, and as the promised aid of Dr. Hollingsworth was not at hand, the result was only what, under the circumstances, would be expected.

The death of Chang is not so easily explained. The theory advanced by Dr. Allen of a cerebral clot as a cause of death is feasible. It is equally feasible that a sudden congestion of the lung, a vascular paralysis, was the immediate cause. His last complaints of a pressure in the chest and of difficulty to lie down point signally to this conclusion. We have already seen that his heart was much weakened, and it is easy, therefore, to believe that it would quickly succumb under the resistance offered by a congestion of the pulmonary vessels.

It would have been advantageous for many reasons to have been able to remove every doubt of the cause of death in the brothers, and especially to have seen if the lesions in each were the same, or different. The injection of the embalming fluid necessarily prevented this research.

We turn now to the portion of the report of Drs. Pancoast and Allen that relates to the band by which the twins were connected, and respecting which there has been for so many years so much difference of opinion amongst the learned in physic. This band, we may remind the reader, was four inches and a half long, seven inches and a half in circumference at the centre, and about ten inches in circumference at the points where it joined with the bodies of the twins. These were the measurements taken when the twins were in London in 1869, but we observe that Dr.

Pancoast speaks of the band as four inches long and eight inches in circumference in the centre. The band was firm, strong, and flexible. When the twins were born, they were held by the band nearly face to face, but in course of time they were able to stand side by side, and while they were young the band was so yielding that they could lie down with their faces turned from each other. Even in their later life they could sleep shoulder to shoulder, as one of their attendants expressed to us—that is to say, half turned round: Chang, the left-hand brother, partly on his left, and Eng, the right-hand brother, partly on his right side. In the median vertical line on the lower aspect of the band was a single umbilicus.

The opinions expressed in this country as to the structure of the connecting band were summarised in our report of February, 1869, with precision. The band was declared to contain cartilage derived from the xiphoid or ensiform cartilage (the lower cartilaginous end of the sternum or breast-bone), and from the cartilage of some of the lower ribs. At the middle line there was assumed to be a sort of imperfect joint between the cartilages. As there had been a hernial protrusion from both bodies into the band in early life, and as an impulse, on coughing, remained to be still felt on the lower aspect of the band, in a line with the umbilicus, it was assumed that an inter-peritoneal communication might exist through the band. That no important bloodvessels, save those which were required for the nutrition of the connecting link, passed through the link, was fully expressed, the most delicate examination having failed to discover pulsation. The remaining structure—that, namely, which was not peritoneal or vascular—was believed to be made up of areolar and fatty tissue. It was further assumed that the umbilical cord had bifurcated in the band, that the vascular communication between the two brothers by anastomosis was extremely small, and that if at any time the band contained any portion of a liver common to each twin, "the traction of the band and the pressure incident to the events of life had reduced any such common portion to very small dimensions."

We who write this notice have no knowledge of the authorship of the report on the living twins published in THE LANCET in the year 1869. We may, therefore, in perfect justice say, as the facts of the examination after death lie now before us, that the paper affords the most remarkable proof of the perfection to which the art of physical diagnosis has arrived. Practically, as we shall proceed to show from Drs. Pancoast and Allen's report, the diagnosis was perfect.

After injecting the arteries of the dead twins with the embalming solution, Drs. Pancoast and Allen extended their incision in each subject to the margin of the band, in front. Dr. Pancoast then placed his hand in the peritoneal cavity of Eng, while Dr. Allen placed his hand in the peritoneal cavity of Chang. Thus they carried their exploration into the band, and pushed forward processes of peritoneum towards the median line of the band until they could feel each other's fingers in the lower portion of the band, behind the median line, but with a distinct layer of peritoneum between the fingers. This demonstrated at once the prolongation of the peritoneum into the band, and the complete separation of the one peritoneal cavity from the other at the median line.

A closer examination showed that from the peritoneum of Chang two pouches were extended, one in the upper portion of the band under the surface of the ensiform conjunction, the other in the lower part of the band. The upper one of these pouches extended from the abdomen of Chang until it fairly reached the peritoneal cavity of Eng, but it was not continuous with that cavity. The lower one, immediately above the umbilicus, was only separated from the skin by a very delicate layer of tissue, so that when the finger was introduced into the pouch and moved, there was an indication of motion in the skin in the under portion of the band. This lower pouch passed across the band from the abdomen of Chang, and was lost in the duplicature of the suspensory ligament of the liver of Eng.

From the abdomen of Eng there extended one peritoneal pouch across the band. This pouch lay between the two pouches from Chang, and it was lost between the layers of the suspensory ligament of Chang. Dr. Allen remarks upon these two last-named prolongations, that "when the significance of the round ligament is remembered, the relation of these pouches directly suggests that they have had essential bearings to the umbilical vein of the funis, and may be provisionally termed the *umbilical pouches*." The same authority suggests that the upper pouch, continuous with the abdomen of Chang only, was in fœtal life "entirely occupied by the liver-tissue, which, as maturity was attained, became smaller, and left an empty space." Hence he proposes to call this upper pouch "*the hepatic pouch*."

The ensiform cartilage was found to be prolonged from each subject and to be united in the middle line of the band. There was a complete continuity of the structure of the cartilages, but there was no true joint in the middle. The easy motion of the cartilaginous part was due "to the elasticity of the connected ensiform appendages and intervening fibro-cartilages." Above the peritoneal pouch of Eng there was discovered a vascular band, and on throwing some "coloured plaster" into the portal circulation of Chang, the fluid was found to run through the vessels of the upper part of the band into the portal vessels of Eng. On turning up the flaps of the two anterior walls of the abdomen, the hypogastric arteries were found running upward in each body into the band. They were lost in this way, the reporters believe, toward the common umbilicus. There was no evidence left to show whether the umbilical cord was double—whether, i.e., there were four hypogastric arteries and two umbilical veins, or whether the cord was single.

The surgical anatomy of the band is thus summed up by Dr. Pancoast:—"The band consists of the skin and fascia which cover it, the two separate peritoneal pouches, the large peritoneal pouch, the vascular connexion, to whatever extent that may exist, between the two portal circulations, and the remains of the hypogastric arteries in the lower portion of the band." To this description Dr. Allen adds that the tissues were well supplied with fat in Eng, and that this condition was very plainly in contrast with what was presented by Chang. Eng's side of the band was well-nourished, Chang's was indifferently nourished. In Eng some fibres of the transversalis muscle formed a well-defined layer with an interval between the ensiform cartilage and the inferior margin of the thorax. These fibres were much less marked in Chang. A few more details respecting the anatomical structure of the connecting band are supplied by the report, but we have reproduced all the essential facts, and herewith we leave them with the reader.

One or two other matters of interest in respect to the twins have been communicated by their medical attendant to the *Philadelphia Medical Times*. The twins, it is maintained, were physiologically distinct entities. "They were different in form, tastes, and disposition; all their physical functions were performed separately and unconnectedly. What Chang liked to eat, Eng detested. Eng was good-natured; Chang was cross and irritable. The sickness of one had no effect on the other; so that while one was suffering from fever, the pulse of the other would beat at its natural rate. The twins not rarely suffered from bilious attacks; but one never suffered at the same time as the other. Chang drank pretty heavily, at times getting drunk; but Eng never felt any influence from the debauch of his brother—a seemingly conclusive proof that there was no free interchange in their circulations."

In THE LANCET Report of 1869 this same physiological distinctness was fully recognised. On the morning when the writer of that report examined the twins, the pulse of Eng was beating at 96, that of Chang at 99 in the minute—a difference which was often much more marked. The sphygmographic readings were also found, as we have seen, exceedingly different in the two men; while the analyses of urines passed simultaneously by the two showed that the excreted fluids were each of distinct quality, that of one brother being normal and of low density; while that of the other brother was of high density, and yielded a deposit of uric acid.

No question was ever discussed more energetically in our time than the question whether during their lives these two distinct men might, with comparative safety, be separated by surgical operation. Some opposed the operation altogether, looking upon it as necessarily fatal. Others favoured it, and would have performed it had they been permitted the opportunity. Various plans for the operation were projected—the knife, the écraseur, the gradual pressure

of a ligature; but none of these projects were carried out, because, in truth, the brothers themselves were not, except on rare occasions when extreme anger inflamed them, anxious to be disunited.

The structure of the connecting band being now known to us, we are able, from an anatomical point of view, to form a better judgment as to what might have been the success of the proposed operation. On this knowledge taken alone we should incline to the opinion that those who were in favour of the operation were most correct. There was nothing anatomically which actually forbade the operation. It would have been a dangerous operation, but certainly not more dangerous than ovariotomy, and when the men were in their heyday of youth it would have been justifiable. But there is what may be called the moral side of the question. We have seen how Eng actually died from emotional anxiety; and we doubt not that if the operation had been attempted in 1869, one or both brothers would have succumbed, however skilful the surgery, from the mental shock to which they would have been subjected. It was well, therefore, that the advice of Syme, Fergusson, Warren, Mott, and Hollingsworth was followed, and that the brothers who had passed so long a life in their living bondage were allowed to proceed to the end of their course as they had lived from their birth.

The Siamese Twins have been for sixty years a curious phenomenon in the world. They have not lived, however, simply to be curious. The psychologist, the physiologist, the practical surgeon of the future, will learn from their history many a useful lesson; and as they all learn, they will, we are sure, remember with equal gratitude and admiration, the patience and skill of the two American anatomists from whose able report we have largely drawn in our present narrative.

SLEEPING WITH OPEN WINDOWS.

To the Editor of THE LANCET.

SIR,—I observe in your impression of to-day that Dr. MacCormac, of Belfast, has given as wide publicity as possible to what he evidently regards as a remarkable exhibition of ignorance on my part. He quotes from an account of one of my Royal Institution lectures, given in the *Illustrated London News*, that an "open window can seldom be endured in the night in this country."

It will, I trust, afford Dr. MacCormac much relief when I tell him that this statement was not made by me. In speaking of the ventilation of bedrooms, I said that although an open window is an excellent means of ventilation, *there are many persons who cannot bear an open window in their bedrooms during the winter in this country* (or words to that effect), but an aperture in the top or bottom of the door can always be tolerated. I endeavoured to show that there should always be at least such an aperture, of sufficient size, together with an open chimney. It is gratifying to learn that Dr. MacCormac and all his family can enjoy the practice of sleeping in rooms "betwixt the door and window *widely open, the draught rushing backwards and forwards* as it lists, with the temperature not much above freezing point." This statement may be regarded as sufficient proof of the robust constitutions possessed by Dr. MacCormac and the members of his family; but, notwithstanding Dr. MacCormac's excellent health, I would rather not recommend the practice to anyone, and least of all should I dream of recommending such a procedure to those who have weak throats and chests. I doubt if sleeping with "open windows" "would cause an approximate if not entire cessation of the ravages of consumptive tubercular disease," as Dr. MacCormac so confidently maintains.

I am, Sir, yours, &c.,

King's College, 7th March, 1874. W. RUTHERFORD.

VALUE OF THE STAINING PROCESS IN THE HISTOLOGY OF THE MORBID BRAIN.

To the Editor of THE LANCET.

SIR,—I have much pleasure in confirming the evidence of Dr. Major under the above heading in your last number.

I have in my cabinet several sections of brain and spinal cord from insane patients, which, in comparison with others from healthy animals, have not taken the staining at all well. Originally I considered this to be due to the post-mortem change, which is necessarily acting for a longer time in human bodies subjected to an examination than in animals killed for the purpose of histological investigation.

To test the truth of this, however, I instituted a few experiments, which led me to the conclusion that the incapacity to stain was due to a pathological condition.

With regard to logwood staining, I may mention that, other things being equal, a bright day causes a much deeper stain than a dull one. This fact, which, I believe, has not been noticed before, is due to the lake-forming properties of the dye.

With an expression of thanks to Dr. Major for having brought forward so important an item,

I remain, yours faithfully,

St. George's Hospital, March 9, 1874. S. W. MOORE.

Obituary.

NEIL ARNOTT, M.D.

A PROMINENT figure in the gallery of "Self-Help" passed from among us on the 2nd inst. Dr. Neil Arnott died in London in his eighty-seventh year. In 1872 he sustained a fall by which his head was so severely injured that his faculties were irreparably impaired, and his friends had long ceased to hope for his recovery. He was buried beside his mother, his brother John, and his two sisters in the Dean Cemetery of Edinburgh.

Neil Arnott was born on the 15th of May, 1788, in the town of Arbroath, in the county of Angus. His father, who did not prosper much in business, took to farming and died early. His mother was a Maclean, and nearly connected with the surviving gentry of the clan. It was from her that Neil, James (still alive), and the other brothers and sisters inherited their remarkable gifts both of body and mind.

After successive migrations to Montrose, to the estate of the Roman Catholic College of Blairs, on Deeside, and to Aberdeen, Neil was put to the grammar school of that city—his energetic mother earning the means for so doing by opening a seminary for young ladies whom she taught in person. At school young Neil had Lord Byron as his companion, and as a boy was hardly less remarkable for his bright, inquisitive, unflagging intelligence. His proficiency in Latin was soon great, and enabled him to gain by competition a bursary in the Marischal College, which he entered in 1801. In his third year he studied natural philosophy under Professor Copland—himself a proficient in the subject, which he made doubly fascinating by his clear style and beautiful experiments. It was Copland's lectures that really gave Neil Arnott his first distinct impulse in physical research, and prepared him admirably for the study of medicine, which he began at Aberdeen, and prosecuted in London in 1806. He was a pupil of Sir Everard Home's at St. George's, whose notice he attracted by his quickness of apprehension, and particularly by his rapid mastery of Sir Edward's new mode of treating stricture of the urethra. A patient of Sir Edward's, labouring under that malady, the captain of an East Indiaman, wished to have at sea with him some one who could treat him *à la* Sir Edward, and Arnott—incomplete as his education was—accepted the post of assistant-surgeon on board ship. This episode in his career was a favourite theme of his conversation in after-life. He imbibed knowledge from every one of his *compagnons de voyage* who could afford it, extending his notes on natural philosophy, studying and commenting on Adam Smith's "Wealth of Nations," and forming classes in French and Italian. One day the captain, in the excitement of a storm, let all his chronometers run down, and, on rewinding them, found they remained dead still. Arnott, having learned from Copland the mechanism of clockwork, soon set the chronometers agoing—to the delight of the captain and officers, who got him to deliver lectures on physics to them which formed the basis of his well-known treatise. Another feat was his performing on the captain the then novel operation of puncturing the bladder from the perineum. With all that he had a "larky" turn, and was fond of telling how he cir-

cumvented a dishonest Chinaman who had sold to the ship a quantity of freely-watered whisky. While in a South American port he learned Spanish, which enabled him, on his return to England in 1811, when he settled in practice, to become physician to the Spanish Embassy, a post which he held along with those of physician to the French Legation and of medical adviser to the French Refugees in Camden-town. In 1823 he delivered in his own house a course of lectures on Natural Philosophy in its bearing on medicine, using for the purpose his prelections delivered years before on board the East Indiaman. The first volume of his "Physics" appeared in 1827, and took the world by storm. A review in *The Times* caused the first edition to be sold in a week, and in a few years' time the book was translated into every language of civilised Europe. Popular as it was, Herschel and Whewell bore testimony to its accuracy and originality, and its author was recognised not only as a *savant*, but as an inventor. His medical practice extended, and he became a Fellow of the Royal Society. In 1836 the University of London was founded, and he was nominated one of the Senatus Academicus. In 1837 he was appointed Physician-Extraordinary to the Queen. In the following year he published his well-known work "On Warming and Ventilating," in which he described, with felicitous clearness, the phenomena of fireplaces, and in particular the stove since identified with his name. Also, in 1838, he prepared, along with Dr. Kay (now Sir J. Kay-Shuttleworth) and Dr. Southwood Smith, a report on the fevers of London, in which the ventilation of dwellings was shown to be the chief preventive. In 1840 the Poor-law Commission deputed him to examine and report upon the fevers in Edinburgh and Glasgow, on which occasion he expounded very fully the principles of preventive medicine. He made known his ventilating chimney-valve—one of the easiest and readiest means of ventilating ordinary rooms, while he planned a more elaborate system for public buildings. Next came his invention of the smokeless grate, in which the fire was fed, not from the top, but from below—"the greatest improvement yet made in the open grate." Professional and academic work prevented him for some years from revising and completing his "Physics," by that time long out of print. In 1856 he retired from practice, and published a new edition of his "Warming and Ventilating," while five years later appeared his "Survey of Human Progress." In 1864 he issued Part I. of his long-awaited revision of the "Physics," which was followed by Part II., treating for the first time of Optics and Astronomy, with the interesting supplement entitled "Arithmetic Simplified." In 1870 he appeared for the last time as an author, the subject being "National Education."

Inventive resource, combined with rare expository power, was Arnott's *forte*. The former produced his "water-bed" for the prevention of bed-sores; the latter the far-famed "Physics," one of the best treatises on a scientific subject ever addressed to the public. The improvement of mankind, indeed, in all directions, was his ambition. He befriended all sound reforms, and actively promoted hygiene and education. He relaxed the exclusiveness of classical study in the University of London, while he was one of the chief authors of the new scientific degrees in that seat of learning, in which he also founded a Scholarship for Experimental Physics. Academical endowment, indeed, was a passion with him. He gave a thousand pounds to the University of King's and Marischal College, Aberdeen, to provide a scholarship of Natural Philosophy, following it up by a similar gift to the other three Scottish seats of learning, and with a further gift of five hundred pounds to the Aberdeen Mechanics' Institution. In London Mrs. Arnott had already given a thousand pounds to each of two colleges for young ladies, to institute scholarships in Natural Philosophy. Two years ago Arnott intimated to a friend his intention of repeating his gift to the Scottish universities, but the accident already alluded to came in to impair his faculties and his power of decision. His hearing, in 1858, had become affected; but till within two years of his death he retained his constitutional robustness, his intellectual activity, and his genial flow of spirits.

No better "life," when it comes to be written, could be placed in the hands of youth than that of Dr. Neil Arnott. The ever-wakeful intelligence, the philosophic candour, the noble realisation of Chaucer's grand old line,

Gladly wolde he lerne, and gladly teche,

were the intellectual characteristics of a career full of masculine self-reliance, indomitable energy, and well-ordered walk and conversation.

DR. FORBES WINSLOW.

MEDICO-PSYCHOLOGY has lost one of its most prominent representatives in Forbes Benignus Winslow, who died on the 3rd inst. at Brighton, after a few weeks' illness, at the comparatively early age of sixty-three. He received his first education in Scotland, and when but fourteen years of age entered as a medical student at Middlesex Hospital, and subsequently at University College. His literary and philosophical tastes were conspicuous even at that age, and by the time he was twenty-one he had published an "Essay on the Application of the Principles of Phrenology to the Elucidation and the Cure of Insanity." To the day of his death, indeed, he never ceased to give a large share of his time to moral and metaphysical speculation.

In 1835 he became a member of the Royal College of Surgeons, and graduated as Doctor of Medicine at Aberdeen University in 1849. In the following year he was chosen a Fellow of the Royal College of Physicians of Edinburgh, and became a member of the London College in 1859, in which year he also obtained the honorary degree of D.C.L. Oxon., on the installation of the late Lord Derby as Chancellor of the University. Among other marks of professional recognition may be mentioned his vice-presidency of the Juridical Society, before which body he read a paper on the legal doctrine of responsibility in cases of insanity connected with alleged criminal acts; while he was at one time president of the Medical Society of London, and delivered the Lettsomian Lectures on Insanity in 1837, which were afterwards published in 1854. Indefatigable with the pen, he published in 1837 a work entitled "Physic and Physicians," a biographical account of eminent medical contemporaries, which reached a second edition in 1842. In 1840 appeared his "Anatomy of Suicide," and two years thereafter his work "On the Preservation of the Health of the Body and Mind." But his most characteristic treatise was his "Plea of Insanity in Criminal Cases," which, published in 1843, entitles him to the honour of being among the first to establish that plea on a sound basis. In the trial of Macnaughton for the murder of Mr. Drummond, the judge, hearing that Dr. Winslow was in court, requested him, though not subpœnaed as a witness, to aid as an assessor. The result was that Macnaughton was acquitted on the ground of insanity, and almost entirely owing to Dr. Winslow's evidence. The legal mind, ever jealous of the encroachment of medical science on precedent, was up in arms at the verdict, and the lay press joined in denouncing it; but the death of Macnaughton not long afterwards in Bethlehem Hospital justified the Court in adopting Dr. Winslow's opinion. The case of Albert Victor Townley was another in which Dr. Winslow's evidence set aside the conviction by the jury, and procured a commutation of sentence—the subsequent career of the unhappy murderer, who destroyed himself, confirming the validity of Dr. Winslow's plea. Evidence similar in its tenour was also adduced by him in the cases of Mrs. Brough, the murderess of her six children, and of Mrs. Vyse, who destroyed her four children, both of whom escaped the gallows through his intervention.

In 1843 he wrote on the "Incubation of Insanity"; in 1849, on "Softening of the Brain" arising from anxiety and excessive mental exertion; and in 1850 appeared the work by which he is most widely known, "Obscure Diseases of the Mind and Brain." Diffuse in style, and not always scientific in method, this work had the merit of calling attention to phenomena not previously taken into account in the diagnosis, prognosis, and treatment of mental disease. It has passed through four editions. His next work was on "Light" as influencing life and health, but it did not add to his reputation.

Dipsomania always engaged his attention, as appears from his essay on "Uncontrollable Drunkenness considered as a form of Mental Disease." Shortly after the publication of this work he gave evidence before a Select Committee of the House of Commons on the practicability of legalising the detention of the dipsomaniac. In 1848, he

founded the *Psychological Journal*, of which he was for sixteen years the sole proprietor and editor. This, the first periodical of its kind, was succeeded by the *Medical Critic*, of which he was also editor; while he was a constant contributor to the literary and scientific journals of the day.

Dr. Forbes Winslow was highly popular in society for his genial philanthropic spirit and his readiness to befriend or advise all who required his aid. The "Baker Brown" fund, by which an annuity was provided for the widow, originated with him; while he was an active promoter of all medical charities. For years it had been his custom on Christmas Day to give a dinner to three hundred poor people, and on his death-bed he desired that the bounty should be continued. His conversational powers were considerable, and drew around him a large circle of notabilities, literary, artistic, and scientific. His hospitality was almost profuse, and many will miss the pleasant social evenings, enlivened by interesting and instructive anecdotes, for which his house was noted. The time he found for authorship may be inferred from the fact that, besides his publications, he has left behind a great many manuscripts on his favourite theme, to be edited according to the discretion of his son and associate in practice, Dr. Lyttelton Stewart Winslow.

ALEXANDER KILGOUR, M.D.

IT will be long before the Aberdeen school sends forth a finer specimen of the *genius loci* than this shrewd, accomplished, genial old physician, who died, after a lingering and painful illness, on the 20th ult. Dr. Kilgour was emphatically one of the remarkable breed whom the north-east of Scotland seems specially fitted to produce—men like Arthur Johnston, Arbuthnot, Arnott, Adams, and Clark, men whose keen intellectual vision and intuitive perception of character are saved from hardness by refined taste and breadth of sympathy, whose professional power is at once graced and enhanced by accomplishment in literature, art, or diplomacy. As a youth Kilgour, with perhaps fewer advantages than the least favoured of the above celebrities, showed a strong love of knowledge and moral effort for their own sake, and entered on the study of medicine with a mastery of Greek, Latin, and mathematics far from common even at the London University. At the medical classes he distinguished himself by his solid application and equally solid acquirements, insomuch that few candidates for the Royal College of Surgeons of England come up better prepared than he did when, in 1826, he took its diploma. Returning to Aberdeen he graduated as Doctor of Medicine at the Marischal College in 1833, and shortly afterwards became connected with the staff of the Aberdeen Royal Infirmary, of which he continued for many years to remain "the chief glory and stay." No teacher was ever more beloved or respected by his pupils than Dr. Kilgour. He inspired them with his own patient intensity of purpose; he withheld from them no artificial aid for the perfecting of diagnosis or treatment, while he taught them to use their organs of special sense and to exercise their judgment, till acquired habit became second nature, and a race of young practitioners passed from under his tuition second to none in manipulative skill, in delicacy of observation, or in soundness of thinking. His written discourse was (as it always is with the higher minds) still more effective than his spoken, and enthusiastic pupils have been heard to declare in after-life that no physician with whom an extended experience had brought them acquainted came so near in certain important characteristics to Sydenham. In practice he was highly successful, a result which was only less due to the confidence which his simple, high-toned, genial manner inspired, than to his great knowledge of disease and of the self-righting powers of Nature. His advice was often taken in matters referring to the curriculum of the Aberdeen School of Medicine, and he was twice elected representative of the General Council of the Aberdeen University Court.

Apart from his profession as a teacher and practitioner, he took an active interest in politics, and, Whig as he was of the good old stamp of 1688, he did yeoman's service to his party, not only by his social influence, but ever and anon in the columns of the *Aberdeen Herald*, where his trenchant logic and happy strokes of satire, none the less cutting for being veiled, soon came to be known and relished. In private he was a sedulous student of literature; kept his classical knowledge up to its early academic pitch of nicety by constant recurrence to favourite authors; rarely travelled abroad without his "Horace" or his "Seneca"; and spent not a few *noctes cænæque deûm* with Dr. Francis Adams, of Banchory, in congenial study of "Hippocrates," "Paulus Ægineta," and "Aretæus."

Of late years his robust health began to decline; and he retired, *donatus jam rude*, with his wife (a daughter of the late Mrs. Lumsden) and his son to Loirston, a pleasant little property between Aberdeen and Stonehaven, where he awaited with equanimity his approaching end. His interest in progress, political and professional, was strong and catholic to the close, when, with faculties unclouded and faith pure and unwavering, he passed away from the scene of which he had so long been the ornament and the pride. Dr. Kilgour completed his 70th year in October last.

THE MEDICAL STUDENTS' DEMONSTRATION.

THE members of the medical profession are generally allowed to be exceptionally loyal in their sentiments, and no one would, we think, dare to doubt that medical students are, perhaps, the most loyal of Her Majesty's subjects, although the manner in which they display their affection for the Royal house is sometimes too boisterous to suit the tastes of less jocund spirits. Not the least interesting of the public demonstrations on the occasion of the Duke and Duchess of Edinburgh's public entry into London on Thursday last was the procession of between three and four hundred medical students and about one hundred civil-service men, each bearing two torches. Col. Henderson, who, happily, had been previously consulted, gave his consent to the demonstration, on condition that the students undertook to avoid Oxford-street, Regent-street, the Strand, and some of the principal thoroughfares. According to the programme which had been previously drawn up, the students met at Blackfriars-bridge, and proceeded along the Thames Embankment, through St. James's Park to Buckingham Palace, in front of which they produced a general blaze with the accumulated remains of their torches.

ACCIDENTS IN CONNEXION WITH THE ROYAL PROCESSION.

ON an inquiry at the various hospitals we are pleased to find that the accidents at the demonstration on Thursday last were comparatively few in number, and for the most part of a trivial nature. The smallness of the accident bill is no doubt partly due to the unfavourable state of the weather which prevailed during the procession, and partly to the precautions that were taken in the shape of examining the balconies and stands on which the on-lookers should collect, and by condemning those that were beyond repair and supporting those which would otherwise be unsafe.

The following is a list of the more serious accidents that have been attended to at the hospitals in or near the line of route. At St. Mary's Hospital, a case of fracture of the olecranon; at St. George's, a case of fractured thigh; at Middlesex, a man with a severe lacerated wound of the hand, and a patient who had received a black eye, were attended to. Charing-cross Hospital appears to have had the lion's share of the casualties, having received in one batch seven persons who had been injured by the fall of a stand; and subsequently two others who had been knocked down. Three of the cases were deemed sufficiently serious to be admitted, but only two stayed in the hospital, one of the patients (a woman) having preferred to go home. Three other patients were sent home in cabs. None of the cases, which were for the most part strains and bruises, were of a dangerous nature, a broken bone having occurred in only one instance. At the Westminster Hospital, a policeman who had been injured in attempting to stop a runaway horse, was admitted with a severe laceration over the left knee-joint, and another wound on the inner side of the thigh; but so far the case does not present any indications of a threatening character.

Medical News.

APOTHECARIES' HALL. — The following gentlemen passed their examination in the Science and Practice of Medicine and received certificates to practise on March 5th:—

Crossman, John, St. Thomas's Hospital.
Robinson, Richard Edward, Leeds.

DR. G. W. HATCHELL, of Dublin, has been appointed Physician in Ordinary to the household of his Grace the Duke of Abercorn.

ON Wednesday, the 4th inst., the first stone of a new wing to the North-Eastern Hospital for Children, Hackney-road, was laid by Mr. W. L. Barclay. Subscriptions amounting to £5000 were announced.

THE deaths in Reigate during the past year amounted to only 238, or 14·9 per thousand of the estimated population. In the same period the mortality in Croydon was 17 per 1000.

MEDICAL SOCIETY OF LONDON.—The following is the list of officers and council appointed for the ensuing year:—President: Mr. Victor de Méric. Vice-Presidents: Dr. Sansom, Mr. Gant, Dr. Broadbent, and Mr. Royes Bell. Treasurer: Mr. John Gay. Librarian: Dr. Thorowgood. Secretaries in Ordinary: Mr. Braine and Dr. C. T. Williams. Secretary for Foreign Correspondence: Dr. Cholmeley. Orator: Dr. Anstie. Council: Dr. Brunton, Mr. Thos. Bryant, Dr. Alfred Carpenter, Mr. R. B. Carter, Mr. Alfred Cooper, Dr. R. A. Farquharson, Dr. Clement Godson, Dr. S. O. Habershon, Mr. John Hainworth, Mr. T. Harvey Hill, Dr. Constantine Holman, Dr. J. Hughlings Jackson, Mr. Francis Mason, Mr. R. P. Middlemist, Dr. J. H. Paul, Dr. Douglas Powell, Dr. Leonard Sedgwick, Dr. Symes Thompson, Dr. Willett, and Dr. Wiltshire.

DEATH OF WILLIAM S. ROCHE, M.B. — On March 4th, at Guy's Hospital, from injuries received by his foot slipping when getting into a train at the London-bridge Station, Mr. William Sylvester Roche, M.B., late surgeon R.N. (retired), of Woolwich, lost his life. The deceased was only forty-three years of age. He was promoted, after only two years' service as assistant-surgeon, to the rank of surgeon, for his services in the Crimea, and, in addition to his Crimean and Baltic medals, received the Order of the Medjidie. Surgeon Roche sustained very severe injuries, his ribs, arm, scapula, and pelvis having been smashed by the train, and the unfortunate officer only survived the accident an hour and three-quarters.

THE CAPEL VILLAGE HOSPITAL.—According to the annual report of the managing committee, 32 cases were treated last year in this hospital. The average duration of each case was 54¾ days; the cost of provisions, including wine and spirits, was £3 2s. 8½d.; while the whole expenses amounted to £7 5s. 1d., towards which each patient paid £1 18s. 5d., or very little more than one-fourth. The average daily cost of provisions per patient was thus about 14d. Two patients died, 25 were discharged cured or relieved, and five still remain under treatment. The medical and surgical work is done gratuitously, including a supply of necessary medicines, by Mr. J. L. Jardine, of Capel, a village which contains 1074 people. Patients pay a weekly sum according to their circumstances.

MANCHESTER ROYAL INFIRMARY AND DISPENSARY.—The following circular has been sent to the Colleges of Physicians and Surgeons, London:—"March 5th, 1874.—The medical committee of the Manchester Royal Infirmary beg to call the attention of the Committee of Reference for an examining board in England to note in sec. 2 clause 23 in their report, which, if adopted, will interfere very seriously with the necessary control in the scheme for practical tuition suggested by the College of Surgeons, and recently instituted in the medical and surgical departments of this hospital. The committee are also of opinion that the regulations referring to the admission of graduates of the universities to the final examination should include evidence that the applicants have been engaged in the study of practical medicine and surgery.—Signed, M. A. EASON WILKINSON, M.D., Chairman."

Medical Appointments.

ASHWORTH, J. H., L.R.C.P.Ed., L.F.P. & S. Glas., L.M., L.S.A.L., has been appointed Medical Officer to the Workhouse, and Medical Officer and Public Vaccinator for the Parish of Bourne, Bourne Union, Lincolnshire, vice Burn, deceased.

BAILEY, J. S., L.F.P. & S. Glas., has been appointed Assistant House-Surgeon to the General Infirmary, Sheffield, vice Jordan, resigned.

DAVIES, W. B., L.R.C.P.L., M.R.C.S.E., has been appointed a Medical Officer and Public Vaccinator for the Rhayader Union, Radnorshire.

DE LA MOTTE, P. W., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer for the Swanage District of the Wareham and Purbeck Union.

DOUGLAS, M., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer to Court "Pride of the Wear" A. O. Foresters, Sunderland, vice Yeld, resigned, on being appointed Medical Officer of Health.

DREW, C. W., M.R.C.S.E., has been appointed House-Surgeon to the North Devon Infirmary, vice Budd, resigned.

DUNSMURE, J., jun., M.D., has been appointed an Ordinary Physician to the Royal Hospital for Sick Children, Edinburgh.

FENNE, J. M., M.B., L.K.Q.C.P.I., has been appointed a Physician to the City of Dublin Hospital, vice Purser.

GANGTANG, E. M., L.R.C.P.Ed., M.R.C.S.E., has been appointed House-Surgeon to the Infirmary and Dispensary, Bolton, Lancashire, vice Sergeant, appointed Medical Officer of Health.

HOPE, S. W., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for No. 2 District and the Workhouse of the Petworth Union, vice Morris, deceased.

LUCAS, R. C., B.S., M.B., F.R.C.S., has been appointed Surgeon to the Evelina Hospital for Sick Children.

MORGAN, H. M., L.R.C.P.L., M.R.C.S.E., has been appointed Medical Officer for the St. Chad District and the Workhouse of the Lichfield Union.

ORMSBY, J., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Medical Officer for the Astley District of the Martley Union, vice Lamb, deceased.

PRITCHARD, J. C., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Lyme Regis District of the Axminster Union, vice Skinner, resigned.

RICHARDSON, R., L.R.C.P.Ed., L.F.P. & S. Glas., has been appointed a Medical Officer and Public Vaccinator for the Rhayader Union, Radnorshire.

SANDELL, H. W. A., L.R.C.P.Ed., M.R.C.S.E., has been appointed Medical Officer and Public Vaccinator for the Calne Union, vice Brigstocke, resigned.

SCOTT, W. L., F.C.S., has been appointed Public Analyst for the Borough of Hanley: £25 per annum, and 6s. per analysis.

STONEY, F. B., M.R.C.S.E., L.R.C.P.Ed., has been appointed Medical Officer and Public Vaccinator for the Millom District of the Bootle Union, Cumberland, vice Rogers, resigned.

TOMES, J., M.R.C.S.E., L.D.S., has been appointed Consulting Dental Surgeon to the Middlesex Hospital, on resigning as Dental Surgeon.

VEITCH, W. Y., L.R.C.P.Ed., L.R.C.S.Ed., has been appointed Honorary Surgeon to the Middlesborough Cottage Hospital.

WIGMORE, P. S., L.R.C.P.Ed., L.K.Q.C.P.I., L.R.C.S.I., has been appointed Medical Officer, Public Vaccinator, and Registrar of Births &c., for the Kanturk Dispensary District of the Kanturk Union, vice Curtin, deceased.

YEO, G. F., M.D., L.R.C.S.I., has been appointed Lecturer on Physiology at the Carmichael School of Medicine, Dublin, vice Purser.

Births, Marriages, and Deaths.

BIRTHS.

BRABAZON.—On the 6th inst., at Lymm, Cheshire, the wife of Wm. Philip Brabazon, M.D., of a daughter.

BROWN.—On the 8th inst., at Beckville, Beckenham, the wife of Chas. R. Brown, M.D., of a son.

BULLOCK.—On the 2nd inst., at Isleworth, the wife of H. Bullock, F.R.C.S.E., of a son.

DUNDAS.—On the 4th of Jan., at Port Blair, the wife of Geo. A. Dundas, L.R.C.P.L., Bengal Medical Service, of a daughter.

HEAD.—On the 6th inst., at East Grinstead, the wife of Robert T. Head, M.R.C.S.E., of a son.

KING.—On the 28th ult., at Widnes, Warrington, the wife of Germain King, L.R.C.P.L., M.R.C.S.E., of a daughter.

ROBERTS.—On the 9th inst., at The Elms, Coningsby, Lincolnshire, the wife of Thos. Andrew Roberts, M.R.C.S.E., L.S.A., of a son.

MARRIAGES.

LOW—SPENCER.—On the 5th inst., at Cadney Church, Robert Bruce Low, M.D., of Helmsley, to Henrietta Jane, daughter of Samuel Spencer, Esq.

TURNER—WARREN.—On the 5th inst., at the Parish Church, Princes-Risborough, Frederick Henry (youngest son of John Turner, Esq., of High Wycombe, Bucks), to Eliza, second daughter of the late Thomas Abbotts Warren, Esq., of Princes-Risborough, Bucks.

DEATHS.

BALE.—At Abogoo, on the march as a volunteer with Captain Glover's Expedition, Henry A. Bale, M.R.C.S.E., Surgeon H.M.'s Ship "Bittern."

COGHLAN.—On the 3rd inst., John P. Coghlan, M.D., of Kilmacthomas, Co. Waterford.

COLLINS.—On the 19th ult., at Mentone, B. G. Collins, L.R.C.P.Ed., Surgeon North Durham Militia.

FERNIE.—On the 7th ult., at Kimbolton, Hunts, Thomas Peter Fernie, M.R.C.S.E., aged 73.

POWELL.—On the 4th of Jan., at Glen Cove, Long Island, North America, Dr. H. E. Powell (eldest son of H. Powell, Esq., of Winchester), aged 37.

SWAIN.—On the 27th ult., Thomas Swain, L.R.C.P.Ed., of Newhall-street, Birmingham, aged 55.

TODD.—On the 5th inst., John Todd, L.F.P. & S. Glas., of Friockheim, Forfarshire.

Notes, Short Comments, and Answers to Correspondents.

INCREASE OF POPULATION IN DURHAM.

THE county of Durham stands pre-eminent among all the English counties, Middlesex and Surrey alone excepted, for rapid growth of population, as evidenced in the last Census Returns. The rate of increase since 1861 for all England was 13 per cent.; in Durham it was 37 per cent., the rate for the previous decenniad having been 32, and 26 in 1841-51. Mining and manufacturing industry are extending with such rapid strides as to draw a yearly increasing number of hands from other counties, who are too frequently content to earn high wages at the cost of living in a condition of utter barbarism as regards matters sanitary. Hence it is that the pit villages and the densely packed towns of Durham are rarely without unfavourable mention in the Quarterly Returns of Mortality; the fact being that, as a rule, no forethought has been exercised about the health of the settlers by the employers who have attracted them to their works. The various local authorities must have had, and must continue to have, a hard time of it, if they have in any adequate measure set about the works necessary to provide for the health requirements of the large populations thus got rapidly together within the county. The proceedings at the recent annual meeting of the Sunderland and South Shields Water Company convey some idea of the rate at which the population is growing. The Chairman said that in consequence of the increased demand for water in the Hebburn district, largely owing to the opening out of Boldon Colliery, with its large population, they had been compelled to lay down a new 18 in. main through East Boldon, and thence across the country. The Hylton district was now pressing them, and, in fact, the constant demand over all their area had induced them to decide on the construction of new works at Dalton-le-Dale, where, they had reason to believe, an unusually large quantity of water would be obtained. The Company began supplying Jarrow with a 3 in. main; but soon they had to go to an 8 in. then to a 12 in., and now an 18 in. is necessary. From Seaham a water revenue of £1000 a year is now derived; while from the Shields district, where they began with £1500, they now get £24,000.

Dispensary Surgeon.—The medical officer is bound to provide splints and other necessary apparatus for fractures.

Dr. Duchenne's lecture shall, if possible, be published next week.

THE WEBB FUND.

THE following contributions have been received by Mr. Augustus Churchill, the Treasurer, to the 11th inst.:—

	£	s.	d.
Dr. Richardson	5	5	0
Dr. Chadwick	1	1	0
Mr. R. Ratcliff	5	0	0
Mr. Sergeant Robinson	3	3	0
Miss Maria Coulson	2	0	0
Mr. Carl Feish	2	2	0
Mr. C. W. White	5	5	0
Baroness Meyer de Rothschild	5	0	0
Mr. Edward Curd	5	5	0
Mr. R. F. Curd	5	5	0
A Friend	10	10	0
Ditto	1	1	0
Dr. Pett	2	2	0
Dr. Smith	1	1	0
Dr. Moorhead	1	1	0
Dr. Lush	0	10	6
Dr. Griffin	0	10	6
Dr. Tizard	0	10	6
Dr. Rhodes	0	10	6
A Friend of Dr. Druitt	5	0	0
Five Ladies at Weymouth	5	0	6
A Friend at Norwich	1	0	0
Mrs. Low	2	2	0
The Misses Low	1	1	0
Mr. Edward Lund	2	2	0
The Misses Ratcliff	20	0	0
Mr. R. S. Tomlinson	5	0	0
Mrs. T. Robinson	5	0	0
Miss Cooper	3	0	0
Mrs. Robinson	3	0	0
Miss Goodger	2	0	0
Dr. Peyton Blakiston	20	0	0
A Friend	3	3	0
In Memoriam	5	5	0
Mr. A. P. Price	2	2	0
W. W. Y.	20	0	0
Mr. H. Doulton	10	0	0
Tredegar Iron Company	10	0	0
	181	18	6
Amount previously acknowledged	1296	15	6
Total	£1478	14	0

NEW METHOD OF REVIVING PATIENTS ASPHYXIATED BY CHLOROFORM INHALATIONS.

DR. CAMPBELL, of Paris, recommends, in a late number of the *Journal de Thérapeutique*, to place persons threatened with death from inhalations of chloroform head downwards and feet upwards for between ten and fifteen minutes. He considers that death arises through syncope due to cerebral anæmia; hence the advantage of inducing an artificial cerebral congestion. The usual efforts at mechanical breathing—excitement of respiratory nerves, the drawing out of the tongue, insufflation into the lungs, &c.—may be had recourse to concurrently. Dr. Campbell mentions only one case where this method succeeded; it was suggested by Nélaton during an operation performed at Paris by Marion Sims. It would appear that the late Professor Nélaton was the first surgeon who introduced this practice. The author also thinks that the inverted position tends to drive from the lungs and trachea pent-up vapours of chloroform, which were increasing the asphyxia. It might be asked whether the stagnation in the cerebral vessels of blood charged with chloroform may not do more harm than good in these cases. Nor is it proved that death occurs generally from cerebral anæmia. The single case mentioned by Dr. Campbell has not considerable weight; but the method should be tried when an opportunity offers, and if it succeed in a series of cases full confidence will probably be reposed in it.

Dr. W. Murdock.—The person in question was fined 40*s.*

ARMY MEDICAL DEPARTMENT.

To the Editor of THE LANCET.

SIR,—It has happened that during the past twelve months I have been thrown into contact with a considerable number of my brother officers of the Army Medical Department, and have in every case inquired into their views concerning the wants of the medical service. I confess frankly that a more desponding and disheartened collection of officers I never heard of, and it is really sad that such should be the case. They all had certain grievances and remedies, and I sum up in the following paragraphs a few points on which they spoke.

First, and without doubt the keystone of everything, comes unification. On this subject the best stamp of medical officers—men who occupied excellent positions in their regiments, and were respected by all who knew them, although regretting very bitterly the great social inconvenience of parting from their regiments—confessed the principle to be a true one, and complained far more of the indefinite and inconsiderate way in which it was supposed to be introduced, and yet not introduced, than of the measure itself. On the other hand, many men whose position was far from enviable with their corps, and who fondly imagined they shone by the reflected glory of the regiments to which they belonged, were very loud in their denunciations, said the department was going to the dogs, and that they themselves would leave as soon as possible the sinking ship.

Personally I feel certain that the good stamp of army doctors—men who took a true interest in their regiments, and who will be real and heavy losses to them—will in the end be the warmest supporters of departmental unity. As to the others, neither regiments nor department are safe from some very silly people. A regimental officer myself for many very happy years, I know how bitter a thing it is to leave one's old comrades; but, after all, I must remember I am before everything a doctor, and the regiment must yield to the department.

In truth, unification means coming back to the only true foundation from which we can advance, and that is, not that we are horse artillery men or light cavalry men, or swell infantry corps men, but simply that we are army doctors, and on that sure ground we are unassailable if we only stand together. With one uniform to wear, we should have one principle to stand up for, and that is, to claim equal treatment with the rest of the army. We claim no more, but we should take no less.

In passing from the subject it only remains to say, that had the unification scheme been definitely and regularly introduced, instead of being talked of and not introduced, nine-tenths of the present dissatisfaction could not have occurred.

Secondly. With reference to the change of titles by the Warrant of 1873, a very general opinion prevails that the change for the inspecting grades is true in principle, and a real step in advance; but as to the other changes it is quite the reverse. Granting that we are all surgeons, and do very similar work, yet in the military service there are different titles for every different grade, and ours is the only military department where indefiniteness of title is found. We never see a lieutenant and a captain called by the same title, although both may command companies; nor do we confound majors, lieutenant-colonels, and colonels, although all three may command regiments. In the Control Department every separate grade has a separate title, and so it should be in the Medical Department. With us the title "surgeon" is held by two different grades of officers—one ranking with lieutenants and the other with captains; and the title "surgeon-major" is applied to two grades also—viz., those ranking with major and lieutenant-colonel, all showing a want of definiteness and system, which has been for years the besetting sin of the department. To make things straight, the title "assistant-surgeon" should be revived for officers in their first period of service ranking with lieutenants; the title "surgeon" used by those ranking with captains; the title "surgeon-major" by those ranking with majors; and a distinct title given to those ranking with lieutenant-colonels. In the army all these titles mean certain advantages, and we cannot afford to dispense with any of them.

Thirdly. With reference to dress, it is desirable to state that the position of many sensible army doctors on this head is that their dress should be one at once showing their calling. It is far better for everyone that it should be so, and that no possible mistake should occur. All doctors should wear the Medical Department uniform, but with this proviso, it should be a uniform as handsome and as good in every way as that of the most favoured corps. Because a man is a military doctor he is not to be dressed shabbily. Mark us out as doctors by different styles of ornament; but while ornament is worn we should have it as well as any other corps of officers. For this reason we say that while Royal Engineers, and indeed every body of officers, wear handsome belts, we should not wear very ugly black ones. We have a neat dress belt, let us wear it, and abolish the hideous black one. Again, tried by the test of military custom, medical officers under the inspecting ranks should not wear cocked hats. Officers of the Control Department and Royal Engineers while serving with their men never wear them; but when doing duty in offices and such like they do. We are always with our men until we reach inspecting grades; then, and then only, should cocked hats be worn. Medical officers should wear shakos or other head-dress until they become inspecting officers. Again, the forage-cap needs change. No other department wears one so unbecoming. The Royal Engineers and Control Department are well off in this respect, and indeed so is the whole army. We again claim equality. We should be given a perfectly distinctive cap and suitable badge belonging to the department specially, and worn only by it. That badge should be worn on the shoulder-strap of the serge-coat and on the collar of the mess dress, as in other regiments.

Fourthly. The department claims the honourable distinction of being made "Royal," and being given a badge and motto. No department has served England better in every campaign and in every epidemic for one hundred and seventy years; and now that the regimental tradition is ended for the doctors, the memory of the past should be cherished in a department tradition. By being made "Royal," and giving us some honorary motto, we would be glad to see we were not alone of the whole army forgotten and unhonoured. The history of the English army doctors is yet to be written. When it is given to the world, a record will be found of the lives of some of the bravest and most devoted men England ever produced, but whose names are forgotten to-day by the country they served honourably and well.

There are several other points very important in themselves, but which I will not now notice.

I am, Sir, your obedient servant,

February, 1874. I. V. R. C.

THE "SUNNY SOUTH."

THE Italian winter has been exceptionally severe. In Sicily the cold has been intense, and English travellers arriving from Catania, one of the mildest spots in Sicily, say that snow fell during their visit. Curiously enough, by going farther south one may fare worse, and Cairo prove a bad substitute for Capri. There has been no such winter in Cairo for years as this departing one. From Christmas to February the 20th there have been twelve rainy days, of which two or three have been very wet. Before sunrise the thermometer has stood at 37°, 36°, 35°, and even at 33° Fahrenheit. Kaarmisin or sirocco—a very cold wind in the Egyptian winter—has been greatly prevalent, blowing for twelve days in succession. More than once a kind of hurricane obliterated the sky with clouds of light dust and sand. Even when such strong gales are absent, Cairo is very windy, and the dust-drifts are often distressing, insomuch that a poor French general, suffering from bronchial and pharyngeal irritability, had to leave the place and hurry off to Madeira. "In the hotel," says a writer in *The Times*, "only one of the bedrooms has a fireplace, and, so far as I know, only one of the sitting-rooms has this luxury. The cold has been acutely felt, and a lady friend says she has not suffered so much since we were at Moran, eighteen months ago, as she has done here. I tried to warm the bedroom with lamps, as she felt the cold was retarding her recovery." Drier and milder and brighter as even this exceptionally bad winter at Cairo has been than our English one, still medical men will, doubtless, pause before sending patients to that city of dust, wind, and comfortless hotels.

J. R. H., (Widnes.)—If our correspondent has been correctly informed as to the facts, they may be left to speak for themselves.

Dr. Curtis is thanked for his courteous note.

THE EXHUMATION OF A BODY AT HIGHGATE CEMETERY.

To the Editor of THE LANCET.

SIR,—As there has been no response to the letter of Messrs. Jenkins and Shepherd, which appeared in your journal of the 21st ult., I beg to add a word or two on the case as it affected me personally.

My son was buried on the 27th January in my private grave at Highgate Cemetery, where until the 11th ult. (fifteen days after the burial) I supposed he had remained in peace and quietness. On the 11th ult., however, I was, to my utter surprise, informed by the landlord of my son's lodgings that he had been summoned to attend at an inquest to be held the next day at Highgate, and in the afternoon I also received a similar summons. I attended accordingly; and after the coroner had read the letters as mentioned in Messrs. Jenkins and Shepherd's communication, I was called up and asked in a summary way what I had to say. I stated such of the facts as were within my own knowledge, and in so doing I complained of the exhumation having been ordered without any communication with me; and upon my asking, amongst other things, why the inquiry (if really called for) had been delayed for sixteen days after the burial, the coroner replied that he had been obliged to consult Mr. Rodgers's convenience, who could not attend sooner. I was afterwards informed, however, that Mr. Rodgers had made his examination on the previous Saturday (the 7th), and, if so, my son had been exhumed and left unburied for some six or seven days. I may add that the verdict directed by the coroner was, in fact, the result of the statements in Mr. Shepherd's letter, which was no legal evidence, and although that gentleman and Mr. Jenkins were both present, and tendered by me for examination.

Now, Sir, I would ask, even if a coroner has power to violate the sanctity of a private grave at any distance of time after a burial, is it right or decent that he should do so without any communication with the father of the deceased and the owner of that grave, or giving him any opportunity of proving that insinuations made behind his back were groundless, and made merely for the gratification of some spiteful feeling? I need not further ask whether it is usual for anyone in the position of a judge in this country not only to take action upon, but actually to read, an anonymous letter to a jury as part of his justification for such extraordinary proceedings as were taken in this case.

Your obedient servant,
Chapel Staircase, Lincoln's-inn, March 4th, 1874. E. G. WHITE.

HYRTL'S RETIREMENT.

THE *Allg. W. Med. Zeit.* of the 3rd inst. mentions that great preparations are made to pay due respect to this distinguished anatomist on the occasion of his retirement from the professor's chair. Both the students and Dr. Hyrtl's colleagues are co-operating to do proper honour to a man who has thrown such lustre on the Vienna school. The same journal stated a short time ago that the authorities had not acted fairly to the professor, that he had been the subject of painful annoyance, and that his retirement was far from being a step cheerfully taken. Everyone must deplore such a state of things, and it is to be hoped that the tokens of admiration and sympathy which are about to be offered will compensate for the ingratitude of those who ought to be proud of having so long enjoyed the services of so eminent a teacher.

Mr. Archibald (Cheltenham) had better consult THE LANCET Report on Filters.

THE paper of *Dr. Purdon* (Belfast) shall shortly be published.

D. W. R. should read THE LANCET.

DERANGED AUDITORY FUNCTION.

To the Editor of THE LANCET.

SIR,—You were good enough to publish a letter from me, under the above heading, in your issue of Dec. 27th, 1873. A Mr. Blackburn was kind enough to write, advising me to try hydrochlorate of ammonia in ten-grain doses three times a day. This I have done; but my patient is no better. Allow me, however, through your columns to thank Mr. Blackburn, and again ask if any of your subscribers will suggest any other remedy likely to prove successful.

Yours truly,
March, 1874. MALLEUS.

BANGOR AND BEAUMARIS UNION.

A CHARGE of neglect has been brought against Dr. Williams and the relieving officer, Mr. Ogden. The case was that of a woman who had suffered for years from paralysis, but, according to one of the medical men called in, had also typhus fever with mulberry rash, in whose case the relieving officer, misunderstanding the order of the Board, discontinued pecuniary relief—somewhat harshly we think. The chief charge against Dr. Williams was, that after being rather scolded for his alleged, but not proven, inattention, he ceased to attend the woman, leaving her to the care of another doctor who was called in, Dr. Griffiths, who ordered her beef-tea. In the course of five years' service there had never been a charge against Dr. Williams. We congratulate him on this fact, and on the slight reflections made by the guardians in regard to his behaviour in this case. We confess to thinking that the poor woman was not sufficiently supplied with nourishment, and to regretting that Dr. Williams should have thought it necessary to have said that Dr. Griffiths in ordering beef-tea should be held guilty of manslaughter. Of all forms of the charge of manslaughter, this is certainly the mildest we have heard. It is also due to Dr. Griffiths to say that he went to the case without knowing that another medical man was in attendance. The following resolution was passed:—

"That Dr. Williams ought not to have given up the case of the pauper on the statement of a third person without proper authority, and that his medical journal was not sufficiently made up. That there appears to have been an error on the part of the relieving officer in discontinuing relief on the order as it was given by the guardians. Considering the previous good service of these officers, they are only admonished to be more careful in future."

F. G. S.—The movement in favour of cremation as a method of disposal of the dead is not confined to England. Its progress in Austria is remarkable. In addition to the appointment by the Medical Society of Vienna of a Committee to inquire into the subject, many members of the Town Council of Gratz have declared in favour of this ancient system. In this town the proposal to make cremation optional appears to find most favour. Some curious information on the subject of burning the dead is to be found in Sir Thomas Browne's work entitled "Hydriotaphia, or Urn-burial."

Mr. A. Minckener.—We believe it occurred in 1863.

MR. LAWSON TAIT'S STAINING FLUID.

To the Editor of THE LANCET.

SIR,—The casual mention by your Birmingham correspondent of my having shown at the Midland Medical Society a new hæmatoxylin staining fluid has brought me so many inquiries that I venture to ask you to let me make it known in your columns. Bochmer's hæmatoxylin solution is given at page 93 of the fifth edition of Frey as follows:—

1. Hæmatoxylin (crystalline)	...	...	...	...	1 grm.
Absolute alcohol	...	...	...	...	30 c. cm.
2. Potash alum	...	...	...	...	·5 to 1 grm.
Water	...	...	...	...	30 c. cm.

Drop the first solution into the second until a deep violet colour is produced. This solution does not keep well; and, even when its results are good, they are very evanescent, scarcely any preparation keeping its colour longer than a few weeks. It is also very difficult to manage; for the tissues are easily over-coloured, and even when the surplus is reduced by alum the results are not satisfactory. But when a section has been well stained by it, the results are finer than with any other fluid.

My modification of the hæmatoxylin stain is, that the first solution is dropped into a five per cent. solution of nitric acid until a deep crimson solution results. The effects of this are superior to those of carmine, and are permanent.

Yours, &c.,
Birmingham, March 10th, 1874. LAWSON TAIT.

Aliquis.—It is common and not wrong for the proprietors of mines to engage a surgeon to attend to accidents. Supposing the engagement to be of a dignified and professional character, it would be the duty of professional neighbours to respect it, and to act on occasion as *locum tenens* for the gentleman holding it. But if the other medical men are very frequently called on to attend grave accidents, they should be paid for their services, and in asking to be so paid should not be considered guilty of any disrespect to the holder of the appointment.

THE STUDY OF INSANITY IN PARIS.

A FEW weeks ago the physicians of the Saint Anne's Asylum for the Insane at Paris commenced a series of lectures, which were well attended. Last Sunday the students were apprised that the lectures were stopped by the authorities. It turns out that some political paper found fault with the exhibition of patients by the lecturers, and thereupon the Minister of Public Instruction issued the interdiction. It is a pity that a morbid sensitiveness, or a desire on the part of a newspaper writer to give birth to a sensational article, should interfere with the legitimate pursuit of science.

THE SULPHIDES IN FURUNCULAR AFFECTIONS.

To the Editor of THE LANCET.

SIR,—The following instance of the modifying influence of sulphides in furuncular inflammations may prove interesting.

A patient applied to me, suffering from an eruption of boils, which appeared in successive crops, and exuded a thin ichorous pus. I prescribed the sulphide of calcium in small, frequently repeated doses (not more than a grain altogether during each day). It was given simply in water, and no other medicine was used. In a few days the pus became creamy and laudable, the inflammation became limited in area, and the boils rapidly died away, no fresh crop appearing.

Yours truly,
LOUIS LEWIS, M.R.C.S.
Albert-street, Regent's-park, March 4th, 1874.

WORKING MEN'S DWELLINGS.

A DEPUTATION of working men have had an interview with the Metropolitan Board of Works to present a memorial, representing the grievous inconvenience and expense to which their order is subjected by the wholesale sweeping away of their dwellings to make room for metropolitan improvements. It was urged upon the Board to consider the desirability of utilising the many vacant spaces now in the Board's possession by the erection thereon of residences adapted to the wants of the working classes. The memorialists called attention to a plan, said to be already in successful operation elsewhere, whereby the proposed houses could be erected without cost or liability to the Board. This plan involves the issue of notes on the security of the Board, to be paid instead of borrowed money to the contractors for the dwellings, and to have all the value and use of money. On the completion and occupation of the houses, notes equivalent to the amount obtained for rent to be called in annually and destroyed till all the notes had ceased to circulate. It was understood that several building firms were willing to fall in with this plan should the Board be disposed to adopt it. The subject was referred to the Works Committee for consideration, and we sincerely trust that, if the plan be really practicable, it will have the Board's sanction; for it is certain that the working classes of the metropolis have a legitimate grievance in the difficulty as regards house accommodation, for the creation of which they are in no degree responsible.

Mr. Lewtas is thanked for his communication.

OBSTETRICAL SOCIETY.

To the Editor of THE LANCET.

SIR,—In your report of the last meeting of the Obstetrical Society my name is mentioned as the seconder of Dr. Galton's amendment. You will greatly oblige by correcting that mistake in your next number. I was prevented attending the meeting, and, if present, should *not* have seconded the amendment.

Yours truly,

South-street, Finsbury, March 8th, 1874. ADOLPH RASCH.

L.R.C.P. Ed., (Liverpool.)—We cannot afford any specific information on the points alluded to.

Dr. Dowse's paper shall be published.

Mr. J. Harries.—We cannot name any person.

COMMUNICATIONS, LETTERS, &c., have been received from—Sir H. Thompson, London; Prof. Rutherford, London; Dr. B. W. Richardson, London; Mr. Haynes Walton, London; Dr. Peacock, London; Dr. Sutherland, London; Mr. Campbell De Morgan, London; Dr. Murchison, London; Mr. Henry Smith, London; Dr. Rasch, London; Mr. Lawson Tait, Birmingham; Dr. Anstie, London; Dr. Smart, Edinburgh; Dr. Meadows, London; Mr. H. Ross, London; Mr. Allan, Fort William; Mr. Taylerson, Whitby; Surgeon-Major Atchison, London; Mr. White, London; Dr. Schleisner, Copenhagen; Dr. Noel, Tooting; Mr. J. Waring-Curran, Mansfield; Mr. Dawson, Middlesborough; Mr. Harding, Whittlesea; Colonel Eliot, Portsmouth; Dr. F. M. Pierce, Manchester; Mr. Archibald, Cheltenham; Mr. Vann, Liverpool; Mr. Harris, Aberystwith; Dr. Wortabel, Beyrout; Dr. Spender, Bath; M. A. Hardon, Paris; Dr. Shrimpton; Dr. P. Eade, Norwich; Dr. Mackintosh, Chesterfield; Mr. Custance, London; Mr. Bond, Widnes; Dr. Dixie, Stowmarket; Mr. Hayes, Hexham; Mr. Elwin, London; Mr. Moore, London; Dr. M'Dowall; Mr. J. H. Smith, Blackheath; Dr. Hartill, Willenhall; Mr. Percival, Shrewsbury; Mr. Fearn, Chesterfield; Dr. Tate, Woodbridge; Mr. Leaver, Stratford-on-Avon; Mr. Jones, Cambridge; Mr. Bousfield, Thetford; Mr. Phillimore, Nottingham; Mr. Stevens, Cambridge; Mr. Nicholls, Chelmsford; Mr. Plumer, Glasgow; Mr. Cresswell, Dowlais; Mr. Pearce, Ipswich; Mr. Sprague, Kimbolton; Mr. Sellers, Radcliffe; Mr. Peacock, Accrington; Mr. Davison; Mr. J. Jones; Mr. Stalliard, Birmingham; Mr. Powell, Torbay; Mr. Webb, Northleach; Mr. Bartlett, Glasgow; Miss Turner, Wycombe; Mr. Horton, Dudley; Dr. Winkfield, Shirley; Messrs. Fletcher & Herbert, Uttoxeter; Mr. Greening, Bromsgrove; Mr. Roberts, Coningsby; Mr. Beaton, Brighton; Mr. Redmond, Kilhow; Mr. Dixie, London; Mr. Sharp, Truro; Mr. Clayton, Tottenham; Mr. Gotelle, Wokingham; Mr. Wyllie, Blandford; Mr. Gross, Leighton Buzzard; Mr. Cooper, Barnsley; Dr. Waters, Liverpool; Mr. Murphy, Margate; Mr. Kenyon, New Radnor; Dr. Leake, Ramsgate; Mr. Kitto, Sunderland; Mr. Penn, Richmond; Dr. Barraud, Norwich; Mr. Outler, Bradford; Mr. Ashworth, Bourne; Mr. Tulledge, Martock; Dr. Lyle, Exeter; Mr. Cording, London; Mr. Binks, Wakefield; Dr. Toller, Gloucester; Mr. Williams, Abertillery; Mr. Rutson, London; Mr. Betts, Malmesbury; Mr. Davison, Newhaven; Mr. James, Aberdare; Dr. Dyce Brown, Aberdeen; Mr. Hale, Newport, I.W.; Mr. Matthews, Liverpool; Mr. Archer, London; Dr. Curtis, London; Dr. Reed, Manchester; Mr. Dring, London; Dr. Anderson, Newry; Mr. Daniell, London; Mr. Kettle, Small Heath; Mr. Kershaw, Farnworth; Mr. Hills, Ramsgate; Dr. Purdon, Belfast; Dr. Albert Groves; Mr. Lucas, London; Mr. Lowsas, Paris; Royal Institution; A. M. L.; A Medical Officer; The Director-General of the Medical Department of the Navy; Aliquis; A Constant Reader in the Country; J. R. H., Widnes; H. R. V.; M.D.; M.R.C.S.; A Sanitary Advocate; &c. &c.

Huddersfield Chronicle, East London Observer, Newcastle Daily Chronicle, South London Journal, Cork Constitution, Bradford Observer, Academy, Evening News, Scotsman, Manchester Guardian, Liverpool Daily Post, Surrey Advertiser, Metropolitan, Western Morning News, Saunders's News-Letter, and *Brighton Guardian* have been received.

Medical Diary of the Week.

Monday, March 16.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations on the Eye, 1½ P.M.
ST. MARK'S HOSPITAL.—Operations, 9 A.M. and 2 P.M.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."
MEDICAL SOCIETY OF LONDON.—8 P.M. Address by the President, Mr. de Méric.—Dr. Dowse will exhibit a Basilar Artery (Abnormal); and an Elbow-joint, showing Dislocation of both Bones backwards of thirty years' standing.—Dr. J. M. Fothergill, "On some points in the Treatment of the Diseases of Children."

Tuesday, March 17.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 3 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. Tyndall, "On the Physical Properties of Liquids and Gases."
STATISTICAL SOCIETY.—7½ P.M. Mr. Henry Beverley, Inspector-General of Registration in Bengal, "On the Census of Bengal."
PATHOLOGICAL SOCIETY OF LONDON.—8 P.M. Adjourned Discussion on "Cancer."

Wednesday, March 18.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. MARY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.
GREAT NORTHERN HOSPITAL.—Operations, 2 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
LONDON HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 3½ P.M.
CANCER HOSPITAL.—Operations, 3 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Murchison, "On Functional Derangements of the Liver."

Thursday, March 19.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. W. C. Williamson, "On Cryptogamic Vegetation: Ferns and Mosses."
HARVEIAN SOCIETY OF LONDON.—8 P.M. Special Meeting to consider the present position of the Society.—Dr. W. H. Day, "On Milk as a Diet and a Medicine."

Friday, March 20.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1½ P.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
GUY'S HOSPITAL.—Operations, 1½ P.M.
ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Mr. W. K. Parker, "On the Structure and Development of the Skull in the Vertebrata."
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Dr. Sibson, "On the Influence of Bright's Disease in the Production of Inflammation."
MEDICAL MICROSCOPICAL SOCIETY.—8 P.M. Mr. Geo. Giles, "On Staining with Anilin Dye for Balsam Mounting."—Dr. E. C. Baber, "On Staining with Picro-carminate of Ammonia."
ROYAL INSTITUTION.—8 P.M. Weekly Evening Meeting.—9 P.M. Dr. W. B. Carpenter, "On the Temperature of the Atlantic."

Saturday, March 21.

HOSPITAL FOR WOMEN Soho-square.—Operations, 2½ A.M.
ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10½ A.M.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1½ P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1½ P.M.
KING'S COLLEGE HOSPITAL.—Operations, 1½ P.M.
ROYAL FREE HOSPITAL.—Operations, 9 A.M. and 2 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Mr. C. T. Newton, "On Wood's Discoveries at Ephesus."

TERMS FOR ADVERTISING IN THE LANCET.

For 7 lines and under	£0	4	6	For half a page	£2	12	0
For every additional line.....	0	0	6	For a page	5	0	0

The average number of words in each line is eleven.

Advertisements (to ensure insertion the same week) should be delivered at the Office not later than Wednesday; those from the country must be accompanied by a remittance.

Agent for the Advertising Department in France—

Mons. DE LOMINIE, 208, Rue Grenelle St. Germain, Paris.